2017

Spectrum 2017

Saint Mary's College of California


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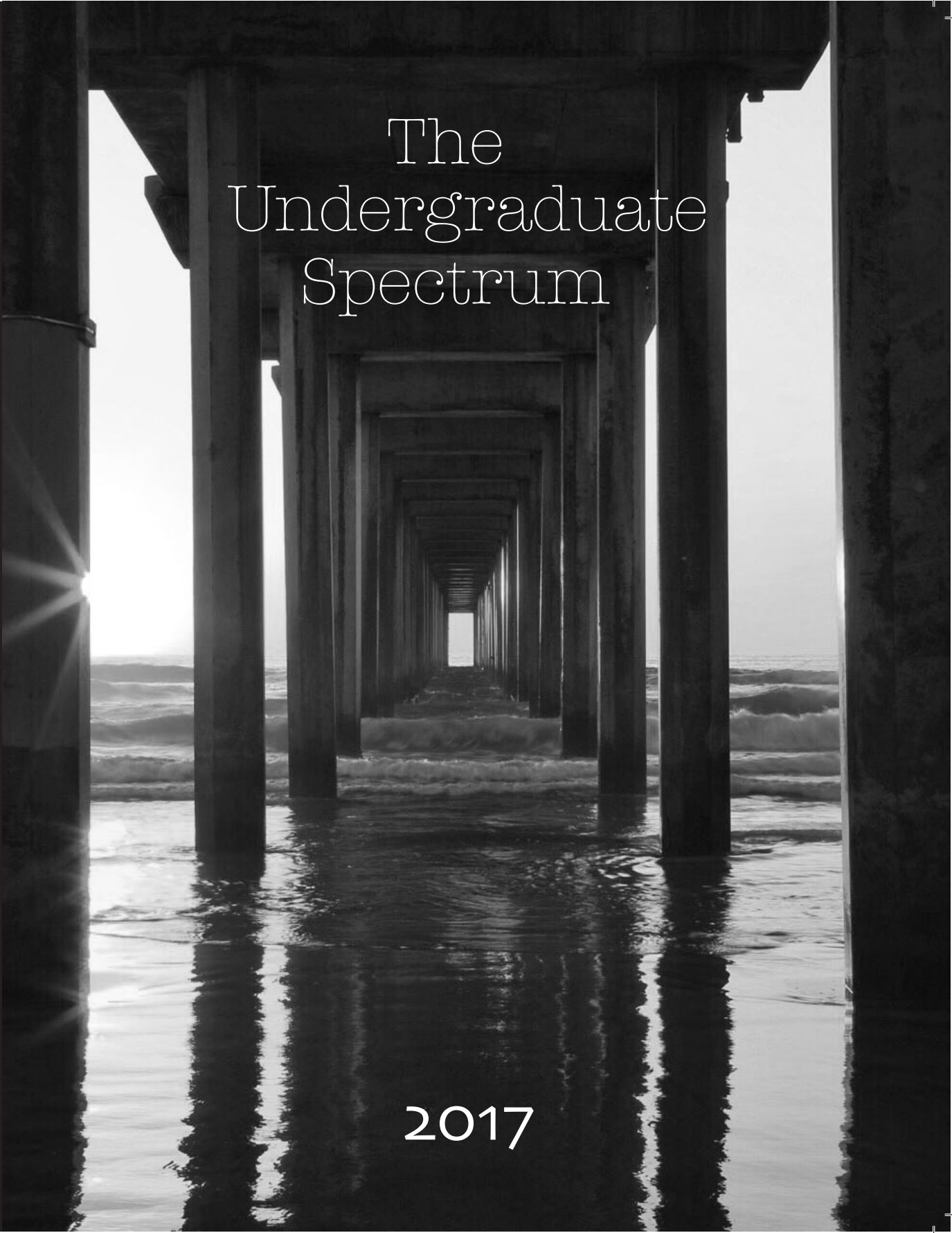

The Undergraduate Spectrum

2017

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Letter from the Editor

Welcome to the 2017 edition of *The Undergraduate Spectrum,* a journal showcasing the rich diversity of artistic and rhetorical practice at Saint Mary's College of California. Published here are winners of the 27th annual Newman Awards for writing in Collegiate Seminar and the 29th annual Spectrum Awards for writing in the disciplines. In bringing the Seminar writing of *The Undergraduate* together with the disciplinary writing of *Spectrum,* this journal illustrates the functional differences in method, tone, style, and organization that distinguish writing in the disciplines even as it manifests the formal principles of expression that undergird communication in any context.

Each year, the difficult task of narrowing the field of blind submissions requires much serious deliberation by our diverse panel of judges, consisting of both professors from across the curriculum and student Writing Advisers in the Center for Writing Across the Curriculum (CWAC). Accordingly, we extend our deepest appreciation to all the professors who nominated their students' writing in 2016, to all the students who submitted their own writing, and to all the judges who gave of their time and wisdom during the selection process.

Following the first round of selection, a staged editing process, mirroring that which occurs when writers work with professional publications, brings finalists to CWAC to work with a Writing Adviser as they revise their work through three drafts. Working with Advisers, finalists review both idea- and sentence-level issues and refine and resubmit their pieces for final consideration. Winning texts are then selected from among these finalists.

This year marks the fourth in which students from the practicum course Communication 190 applied principles of copy-editing and design learned in the classroom to the publication of this journal. Communication 190 fosters a creative environment for Saint Mary's students to produce this publication, and we are grateful for the collaboration and support of the Communication Department, particularly Chair Dan Leopard, in helping us shape this course.

We are also grateful for the contributions of the student artists whose visual works grace these pages and to Art and Art History Department Chair Peter Freund for his commitment to this journal. Please see page 78 for guidelines for both art and writing submissions.

Joe Zeccardi

Honorable Mentions

Newman

Kathryn Carero
"Meeting Oppression With Force"
SEM-104: The Global Conversation of the 20th & 21st Centuries
Professor Mike Lisanti

Maria-Elena Diaz
"Human 'Nature' And Its Causes"
SEM-103: Western Tradition II
Professor Julie Park

Lindsey Knudsen
"The Integrity of Free Will"
SEM-002: Western Tradition I
Professor Margaret Pagaduan

Jessica Mott
"What's [a] Right?"
SEM-103: Western Tradition II
Professor Kathleen Tierney

Spectrum

Lindsey Gamache
"What You Will"
ENG-019: Intro. to Literary Analysis
Professor Lisa Manter

Felicia Good
"The Marriage of Growth and Certainty in Conjugate Diameters"
INT-134: Sophomore Mathematics
Professor Elizabeth Hamm

2017 Newman Award Winners

2017 Spectrum Award Winners

La Raza No Importa: The Inherent Contradictions of Race in Contemporary Cuba

Aidan Muñoz-Christian

Cuba, the elusive island nation in the Caribbean, has consistently fallen under international scrutiny ever since its genesis. This is largely due to its Socialist regime and the resulting policies, its tense relationship with the Soviet Union, and its contentious relations with the United States that have spanned over a century. While a substantial amount of scholarship on Cuba employs an international scope, there exists a rich and nuanced array of relationships within the nation itself that have shaped its contemporary culture. Some of these relationships are linked to outside influences that have been prominent in Cuba since its early history, and they manifest themselves in the everyday discourse and lifestyles of Cubans. The conceptualization of race in Cuba has resulted from these influences and histories. Race in Cuba carries varying connotations, but it is nearly indisputable that it is a complicated, multifaceted concept that has shaped social hierarchies and Cubans' worldviews. It is the ultimate social construction that is an inescapable social reality. The ways Cuban people discuss race and ethnicity, and the resulting vocabulary, terminology, and phrases, indexes their views of race, and how these emerge in contemporary culture. In this paper, I will argue that there exist contradictions in the conceptualization of race in Cuba, which are often revealed in the linguistic discussion of race and ethnicity. I will discuss the irony of the post-revolutionary Socialist government proclaiming Cuba a raceless society with the presence of a clearly outlined racial hierarchy. I will explore how an entire repertoire of vocabulary used to describe these racial classifications has become embedded in Cubans' ideologies, and I will discuss the conflict that can result from these racial attitudes in Cuban society, socially, politically, and economically.

Cuba's history involves the intersection of various racial identities, which has resulted in the social stratification of race on the island. Because Cuba was subject to colonialist powers for decades, the presence of a slave economy that emerged due to the sugar cane economy established ideologies of Black inferiority and White supremacy from early on (Roland 2011:23-24). As the years progressed, Blackness came to be considered inferior. Attitudes towards Cuba's predominantly African slaves contributed to the configuration of Blackness as inferior, and the legacy of this slave system has influenced ideologies in present-day Cuba. Slaves were deemed as lesser beings, an idea that unfortunately is still present in Cuba despite changes in the discussion of race. These hierarchical notions of race were relayed by the government, even once Cuba gained independence (Roland 2006:153). However, after the late Fidel Castro overthrew Fulgencio Batista's regime and became Cuba's dictator under the newly established Socialist government in the Cuban Revolution of 1959, discourse on race changed dramatically. Because the Socialist Revolution set out to increase the standard of living for all Cuban people and to emphasize the improvement of conditions for marginalized populations, antiracism became a tenet of the revolution and of Cuba's new government. Socialism was intended to bring prosperity to those

who had suffered from systemic injustice, a demographic which includes colored populations who were targets of racism. Cuba was proclaimed to be both a "raceless society" and one that was proud of its "mestizaje," or mixed heritage where "el color no importa" [color doesn't matter] (de la Fuente 2008:698). These phrases and terms were relayed to the public as part of the government's revolutionary propaganda, much of which remains to this day.

Yet how could a country that once had a thriving slave economy, and which had stripped Blacks of nearly any political or economic presence just decades before, suddenly shrug this off and claim that race doesn't matter? While the antiracist ideals were admirable, and may have helped to an extent in allowing racial minorities more access to resources that they previously lacked, the claim that Cuba was just a mix, simply a peaceful "mestizaje" of different races, ethnicities and cultures, and furthermore, that race doesn't matter at all, overlooks any racial stratification and masks the racism present in Cuban society. Jalane D. Schmidt puts it eloquently in that "racism remains masked by the state's official championing of mestizaje" (2008:160). Because governmental authority has such major influence on Cuban society, declaring racism as nonexistent fails to recognize the possibility of any racial biases or racist attitudes present in Cuba. This mutes the national conversation on race because of the power the government is able to exert.

Along these lines, the fundamental contradiction of race in Cuba lies in the notion that what the government communicates to Cubans about this topic is far from its actual reality in Cuba. While the government and Cubans alike utter the raceless-tinged terminology in everyday discourse, there exists a complex and linguistically charged racial hierarchy that is embedded in Cuban society and that began to emerge in Cuba's infancy. The resulting terminology is utilized regularly to reflect Cubans' views on race. Kaifa Roland clearly outlines this racial hierarchy in her article "T/racing belonging through Cuban tourism," demonstrating how categories of race can be expressed through language. At the top of the hierarchy is Whiteness: "blanco," which carries the most status, privilege, and power (2013:399). The hierarchy darkens, so-to-speak, as it moves down, into the labels of "mulatto" (a person of mixed Spanish and Black heritage), and at the bottom, Black, or "negro." There are even subcategories within these major divisions, which point to the cultural evolutionist perspective that was adopted by the Spanish colonialist government in Cuba and has conditioned many Cubans' worldviews to this day (2011:6). Roland explains that while racial categories are a reality, they are not fixed and one can move from one to the other. The corresponding terminology includes the concept of "blanqueamiento," or Whitening, which is the idea that one can advance from one racial category to another by bolstering one's class, economic and professional status (2006:160). Again, this indicates that the darker someone appears, the more undesirable and inferior they are.

This clearly delineated racialism present in Cuban society is exacerbated by other factors such as the connotations of race-related terms, and how Cubans talk about race. "Negrito/Negrita" is the common terminology to refer to Afro-Cubans or people considered Black in general, and while these are seen as harmless words merely stating that someone's skin is darker, they carry connotations of insignificance and inferiority. By using the diminutive "ito/ita," the speaker suggests that the subject is lesser – not quite a full person but closer to being childish. Saying "esa [that] negrita," as is commonly stated in referring to Black women, removes the individuality of the person and lumps them into a category where they are not distinguished as unique and possessing

a significant role in society.[1] This categorization of people of color reveals dehumanizing attitudes towards those deemed lower on the racial hierarchy. The fact that there is widespread terminology for racial stratification shows that Cuba is far from being a post-racial society; in fact, it reveals how much prevalence race still has in everyday life in Cuba, contrary to the ideals of the revolutionary government which proclaimed Cuba to be devoid of racial differences.

While there has been a more recent and gradual acceptance of the social place of Afro-Cubans, they still fall short of equal treatment on the political level. This indicates the failure of the revolution to carry out the raceless, antiracist ideals it proclaimed. In Amelia Rosenberg Weinreb's article "Race, fé (faith) and Cuba's future," the economic standing of Afro-Cubans is explored through an analysis of Afro-Cubans' limited access to dollars. This demographic is disproportionately disadvantaged in this sector because the "[w]hite, professional flight from Cuba in the early 1960s, established a base that allowed White Cubans to send money back home. Those who benefited most from early revolutionary reform — Afro-Cubans from the poor and rural Eastern provinces — remained in Cuba in the early years of the Revolution and took government positions" (2008:168).

While there has been a more recent and gradual acceptance of the social place of Afro-Cubans, they still fall short of equal treatment on the political level.

In this sense, the economic marginalization of Afro-Cubans is clear, pointing to their unfortunate plight in a government system that ironically attempted to eradicate any concept of race. To illustrate this idea, 83.5% of Cuban immigrants in the US are White, while only 16% are Black. Based on this statistic, Weinreb estimates that out of the $800 million of dollar remittances that come to the island — assuming that this money stays within racial lines — $680 million will go to White Cubans (2008:169). When dollars indicate power and privilege, Black Cubans have a stark lack thereof. In her article, Weinreb depicts the cycle of Afro-Cuban poverty in a chart, which serves to emphasize how many Afro-Cubans are thrown into a vicious cycle of poverty unofficially embedded in the Cuban dollar economy (2008:170). This need for hard currency has further entrenched the racial hierarchy that is divided based on economic opportunity, and the fact that this economic deprivation exists highlights Cuba's unsubstantiated claims of having a peaceful racial admixture. From these analyses, we can see that White Cubans are more likely to have family members living abroad who provide money for them. Schmidt states that government-controlled media in Cuba depicts these exiles living in the United States as "'worms' who are uniformly White, wealthy, racist reactionaries" (2008:161). Though this is a vast generalization, it may hold some truth that these White-to-White dollar exchanges occurring between the United States and Cuba are contributing to the economic marginalization of Afro-Cubans. Furthermore, these White Cuban exiles can contribute to promoting the racial hierarchy in their home country, even while no longer living there.

Similar to the economic disadvantage that stands as the reality of Cuba's racial

1 As Cuban-American writer Elías Miguel Muñoz has pointed out, "Discursive racism can even betray the most liberal-minded intellectual" (Personal Interview). He cites two cases that he knows personally, one of a Cuban-American feminist critic and professor of cultural studies who inadvertently uses the diminutive "negrito" to refer to Black people; the other of a very progressive Venezuelan professor of Latin-American literature who also employs this derogatory term.

stratification, Black Cubans suffer discrimination at the political level as well. Schmidt notes that there have been numerous race-based political organizations and programs run by Cuban Blacks, yet contemporary ethnographies have focused their energies on Cuba's cultural policies regarding Afro-Cubans (2008:160). It is possible that this could allude to the view of Afro-Cubans as almost solely providing cultural capital in Cuba, rather than having a strong political presence (de la Fuente 2008:702). Although the Cuban government places emphasis on Afro-Cuban "folklore" and culture, this only serves as symbolic capital to depict Cuba for the rest of the world: Afro-Cuban culture may serve to represent Cuba culturally and when it is convenient, but political representation is predominantly a privilege of White Cuba. Whites overwhelmingly represent Cuba's business ventures and its economic future, and "there is little explicit discourse in Cuba about the current and future political status of AfroCubans as 'Blacks'" (Schmidt 2008:160). In other words, people simply aren't talking about the current political presence or the political future of darker Cubans. In fact, even today Whites generally hold most of the powerful political positions, to the same extent as they did in the Republican era between 1902 and 1958, despite a large number of Cubans being of African descent. In the late 1990s, many Black Cubans expressed fears that if there were to be a sudden political change in Cuba, White Cuban exiles could return to Cuba, demand control of their old property once again, and of most concern, re-establish explicit forms of racism in Cuba (Schmidt 2008:161). Now, as we are well into the second decade of this century, this could become more of a reality, with the Cuban government increasingly integrating aspects of capitalism (without naming it as such, of course) and phasing out some of its most radical socialist policies. The minimal political representation of Afro-Cubans reflects irony in that it was a political goal of Cuba in the wake of revolution to establish a raceless society.

Although Cuba took a thirty-year hiatus from active tourism after the revolution, the island is once again becoming a sought-out travel destination, and the prominence of its tourist industry carries the racial conversation into other realms. As mentioned previously, Afro-Cuban culture is highlighted in Cuba as representative of Cuban "culture" as a whole, such as the display of Afro-Cuban music and popular religious practices for the sake of the tourist industry. This culture generates substantial tourism revenue, yet ironically – but not surprisingly – little of this revenue is granted to Afro-Cubans, who are the providers of this tokenized culture (Schmidt 2008:161). White Cubans are preferred as representative of the tourist industry itself; therefore, they generally receive the majority of jobs that require interaction with tourists. They are seen as the "face" of Cuban tourism in light of the reasoning that European tourists feel more comfortable interacting with other Whites (Roland 2006:160). As Weinreb puts it bluntly, employers in the Cuban tourist industry "prefer a White 'Hollywood' or 'Barbie' look" (2008:169). Black Cubans are actively marginalized from the tourism sector, and this is where language practices depict the tourist industry's attitude towards Black Cubans. There is a Cuban term "buena presencia," which roughly means "good presentation" or "good appearance" (Weinreb 2008:169). Generally speaking, White Cubans are thought to possess this good presentation that is favored by the tourist industry. This appearance secures them jobs at tourist venues such as resort hotels and beaches, where substantial numbers of international travelers flock annually. The terminology of "buena presencia," despite being laced with racial connotations, does not blatantly assert or endorse discrimination against darker Cubans, so it is permissible under the idea of a raceless and antiracist

society. Ironically, it subtly allows workplace discrimination against Afro-Cubans and mulattos.

The only exception to this rule is the "jinetera," or female sex worker. These women are generally racialized as exotic mulattas and they are thought to appeal to some European and American men (de la Fuente 2008:704). Jineteras have a complex, multifaceted role in Cuba's tourist economy, and as Roland suggests, they may use their racialized, sexualized role to their advantage in garnering necessary resources and opportunities (2011:56). Nonetheless, their objectified status points to the racial ideologies surrounding tourism, in that people of color are only valuable assets to the tourist economy if they provide sexual capital. Roland also introduces the term "yuma," which loosely means foreigner, but which is now used to refer to tourists in general (2013:407-408). This term is used regularly to label tourists in Cuba; however, Whiteness is almost invariably attached to the term "yuma," implying that all tourists are White (which is not always the case) and deserve preferential treatment since they are valuable assets to the Cuban economy. Hence, Whiteness becomes indirectly associated with economic prosperity, so it is no surprise that Whiteness prevails at the top of the racial hierarchy in Cuba both within the country and extending into the domain of tourism.[2] Overall, the contradictions surrounding Cuba's racial system play out in the tourist industry, wherein Black Cubans are consistently marginalized while their culture is appropriated in order to represent their island's culture as a whole.

The discussion of race in Cuba is not only applied to Cuban-born peoples, but can be viewed in relation to refugees and others who move to Cuba from other countries; it reveals the attempts of Cuban society to create the image of one Cuban identity to which these immigrants can prescribe. Cuba's government seeks to unify a single Cuban identity, an idea applied to the emigrants that Paul Ryer discusses in his article "The hyphen-nation of Cuban-educated Africans: Re-thinking the '1.5 generation' paradigm." Ryer discusses the "1.5 generation paradigm" in relation to foreign-born yet Cuban educated people. These individuals examined in his article are seen to possess a cross-pollination of their home culture and Cuban culture (2010:75). Because they are generally from various African countries, they are considered Black by Cuban standards of race (2010:76). However, since they were not born in Cuba, they are deemed outsiders, but expected to conform to cultural norms established by either their home country or by Cuba. This is what creates the idea of the "1.5 generation paradigm." In the present analysis of racial contradictions in Cuba, what is most notable about this article is its discussion of Cuban culture as one social identifier, suggesting that there are particular, distinctly Cuban preferences, when in reality Cuban culture is nuanced. The contrast between the public discourse on race and the political discourse on race reflects these nuances. The idea of the "1.5 generation paradigm" depicts the result of this contradiction: this group is viewed as adopting aspects of their home country's culture and Cuban culture. Yet, the fundamental question remains unanswered: what is Cuban culture, when considering the diverse identities and historical overtones present? Ryer's analysis, among others, simplifies the notion of Cuban culture, failing to take into account the racial differences that in turn cause cultural contentions. This is at the core of the discussion on race in Cuba.

2 Roland shares her experiences traveling in Cuba as an African American in her ethnography *Cuban Color in Tourism and La Lucha*, and she articulates the misconceptions about her identity that persisted as well as the discrimination she faced as a Black woman. As the only person of color in a group of her White colleagues, Roland was often perceived as a jinetera, because they couldn't conceive of her being a tourist under Cuba's racial ideology (2011: 1-2).

There is no easy answer with regards to the complex racial situation in Cuba. Like other major structural inequities, racism is deeply embedded in Cuban society, and it plays out in the discourse on race and everyday interactions among Cubans. This paper has asserted that the way Cuban people talk about race is indicative of the racial ideologies held in the country, and I have attempted to explore how this is revealed in the social, economic, and political spheres. Cuba has yet to reconcile the stark contradictions surrounding race: a country that proclaimed antiracist values as a result of its socialist revolution has an intricate and pervasive racial hierarchy that is portrayed through discussion and outright discrimination.[3] Now, with the recent death of Cuba's father of the Revolution, Castro, along with the reopening of relations with the United States (that could unfortunately be countered by our new presidential administration), it will be interesting to see the place of revolutionary ideals and the racial hierarchy in the years to come. These changes will inevitably affect the racial situation in Cuba, since it is such an integral facet of Cuban identity.

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3 As a second-generation White Cuban-American, I witnessed the effects of this racial hierarchy when I traveled to Cuba for the first time in May of 2015. I recall many exchanges with White Cubans in which they interspersed the derogatory term "negrito/negrita" in reference to darker-skinned Cubans. On the other hand, I was provided with a reality check on my own overwhelmingly White, privileged identity when I walked the streets of the largely Afro-Cuban Habana Vieja (Old Havana). Each experience was profoundly eye-opening, and further instigated my questions on the complexities of race and culture in Cuba.

Author's Note

My name is Aidan Muñoz-Christian and I am in my second year at Saint Mary's, majoring in Anthropology and minoring in Spanish. I wrote this paper for my Global Perspectives on Race Anthropology course, and I chose to write about the contradictions of race in Cuba for various of reasons. My father is from Cuba, so I consider my Cuban heritage to be an integral facet of my identity and I am constantly seeking to explore Cuban culture and history. This assignment presented itself as an ideal opportunity to do so. When we were presented with the prompt of researching at least one international racial system, I knew that I wanted to examine race in Cuba. Having visited the island for the first time two years ago, and now having taken a class on global constructions of race, I was compelled to apply my newly acquired knowledge of race in anthropology to a country I knew and loved. In class, we had read a short ethnography on tourism and race in Cuba, which had further piqued my interest in the topic. I brainstormed with professor Dana Herrera, did some research, and came up with my thesis.

I would like to thank my professor and mentor, Dana Herrera. She discovered the budding anthropologist within me back in ANTH 1 and the rest is history. She was not only incredibly supportive throughout my process of writing this paper, but also throughout my journey in this educational field thus far. I can say with certainty that I would not be where I am right now if it weren't for her.

I would like to thank my father Elias Miguel Muñoz, who has helped me discover — and re-discover, throughout the years — my passion for writing... and for my Cuban heritage. As a professional writer himself, he has been my most esteemed co-collaborator and editor throughout the years. Along with my mother Karen Christian, he makes up the best support network I could ever ask for.

I want to thank Sabrina at the Writing Center for helping me revise this paper. I'll admit I went into these revision sessions with the idea that there was nothing more to edit in my paper, but I left with a plethora of useful changes that have greatly improved it overall.

Thanks to my roommate and close friend Mary Fernandez who read my paper the night before it was due and spotted a few last minute errors that my tired eyes would not have caught at that point.

Thank you to my closest childhood friend, Alyssa Thomas, who sat by me patiently in a coffee shop as I wracked my brain trying to start this essay, and who read the first preliminary draft.

Finally, thank you to my close friend and fellow Anthropology major Lina Mafi, for reading this paper in its various stages and always providing valuable feedback; also, for inspiring me to major in Anthropology in the first place!

Ecological Evolutionary Dynamics

Julia McDonald

Ecology and evolution are intimately related. Ecological changes are known to shape the evolution of species. However, how does rapid evolution (evolution occurring on the same time scale as ecological changes) affect community structures within ecosystems? Schoener (2011) wrote a review article addressing research on how natural selection drives phenotypic responses to changes in environmental conditions. Studies conducted on natural selection have led researchers to believe that rapid evolution occurs. Schoener (2011) defines rapid evolution as a genetic change that occurs fast enough to have a quantifiable impact on ecological changes. According to Schoener (2011) 47 studies have demonstrated or implied that rapid evolution occurs for a variety of traits. If rapid evolution is possible then evolution feeding back onto ecology is also possible in principle, leading to a feedback loop where ecology causes evolution and evolution feeds back and changes the ecology. This relationship is called ecological evolutionary dynamics (eco-evolutionary dynamics).

The field of eco-evolutionary dynamics is relatively new and researchers have faced many problems trying to get empirical data to support the idea that there is a feedback loop occurring between ecology and evolution. Since this relationship is dynamic and ever changing, the experiments to study this relationship also have to be dynamic. Schoener (2011) explains that a lot of the studies conducted so far on eco-evolutionary dynamics are retrospective studies that show how a present day ecological process can be understood as the outcome of historical events. These studies do not help in understanding eco-evolutionary dynamics because the relationship needs to be studied in real time over multiple generations. Studies that document the change of abundance for populations over several generations, genetic frequencies, mechanistic links between ecological and evolutionary dynamics and controls reporting ecological dynamics in the absence of evolution will be able to provide evidence for eco-evolutionary dynamics (Schoener 2011). No study has ever fully met this criteria but some have come close. Schoener (2011) found nine studies that were multigenerational but they were either field observational experiments or laboratory studies. The laboratory studies provide insights into mechanisms of eco-evolutionary feedbacks and the observational studies allow researchers to analyze data in fundamentally new ways. However, there has been no field experimental study that has shown eco-evolutionary dynamics occurring in nature at the time Schoener (2011) wrote this review. In order for eco-evolutionary dynamics to be properly studied there need to be dynamic experiments that try to account for as much of the criteria as possible.

Utsumi (2015) looked at how herbivore feeding evolution can influence an arthropod community through plants. Large plants, like willow trees, can be the home of complex arthropod communities. The arthropods cannot usually harm the tree as a whole but can affect traits such as alliochemistry, physiology and growth. These herbivory-induced plant responses can change plant traits which, in turn, can affect other herbivores within the community. In *Plagiodera versicolora*, a type of leaf beetle, there are two feeding preference types that are genetically different. The

gourmet type prefers new leaves while the no preference type will eat both mature and new leaves within the willow species. The willows will express different induced responses depending on the beetle genotype. The author hypothesized that the evolution of the feeding preference on the leaf beetle *P. verscolora* can feedback onto the ecological dynamics of arthropod community through plant mediated interactions.

To carry out this experiment they covered new shoots from a willow tree with a mesh bag and left it covered for one month so that the leaves could grow in the absence of arthropod communities. Then they inoculated the tree with three different beetle treatments: gourmet, no preference, and then gourmet and no preference. After six days they removed the beetles and did a community census every two weeks for six months. They found that feeding by the gourmet type led to more aphids which were followed by more ants. This represents the cascading effect of beetles throughout system. The gourmet type attacked new leaves while the no preference type evenly distributed damage between mature and new leaves. The gourmet treatment resulted in fewer larvae than the no preference treatment because of the greater plant response. The number of aphids increased with the number of gourmet type beetles.

This experiment shows evidence that an eco-evolutionary feedback loop occurs within arthropod communities.

This experiment shows evidence that an eco-evolutionary feedback loop occurs within arthropod communities. In the case of this experiment the gourmet beetle type attacked the new leaves on the willow tree. This induced a jasmonic acid (JA) related defense which suppressed its salicyclic acid (SA) related defense. Since the willow is no longer using its SA defense, aphids are now able to attack the plant. Then the aphids attract ants. Increases in herbivore diversity promote evolution towards the gourmet type because diverse communities contain a number of regrowth-inducer species that cause new leaves to form. An increase in aphid abundance favors selection for the no preference type because aphids decrease the quality of new leaves. This causes diversity to increase again and the loop starts over.

It is obvious from this experiment that depending on the beetle type (gourmet or no preference) there will be a cascading effect on the arthropod community. Community diversity data was collected every two weeks over six months. Therefore, they were collecting data over multiple generations in real time which would make this experiment dynamic under Schoener's criteria. The feedback loop that occurs would be considered an example of how evolution can feed back and affect the ecology of an ecosystem. This study would be improved if it was extended beyond the six months. If researchers could see what the community looks like after a year and determine the length of time it takes for the feedback to complete one loop then this could help researchers understand the scale at which evolution can affect ecology. Although this experiment states that the two beetle types are genetically different, Utsumi (2015) never goes into detail about what the genes are or their frequency within the populations. In order for the experiment to properly explain eco-evolutionary dynamics it needed to record genetic frequencies over time.

An article published by El-Sabaawi et al. (2015) looked at the effect of differing life histories in Trinidadian guppies on nutrient recycling. Fish have the ability to excrete inorganic

nutrients as metabolic waste. The nutrients can be used to support primary producers which support primary production. If nutrient recycling differs among different populations then it's possible that micro-evolutionary trait differences among populations of fish can determine the amount of nutrients recycled. El-Sabaawi (2015) hypothesized that life history evolution might affect nutrient recycling patterns in nature. To test this hypothesis they decided to conduct their research on the Trinidadian guppy. Different phenotypic traits evolve based on predation levels. In areas of high predation (HP phenotype) the guppies mature early and produce numerous small offspring. In areas of low predation (LP phenotype) the guppies mature late and produce few large offspring. They know these traits are heritable because they persist in the second generation when grown in the lab.

They measured the guppies' nitrogen excretion rates from high and low predation sections of four major Trinidadian rivers. They found that individually HP guppies excreted more nitrogen than LP guppies. However, as a group the LP guppies excreted more nitrogen than the HP guppies. The HP guppies have lower population densities and on average a smaller body size than LP guppies. The researchers concluded that when a predator is removed the changes in the guppies' body size and population density will have the greatest effect on nutrient recycling. This shift from HP to LP is dependent on predator removal which is an ecological factor. This ecological factor then causes an evolutionary change within the guppy populations (HP to LP). This genetic shift causes the guppies' population density and body size to change which then changes the amount of nutrients being recycled within the ecosystem. This nutrient recycling change will increase the amount of primary production therefore possibly changing the community structure. Although the feedback is dependent on the removal of the predator, it is still a good example of the dynamic cycle between ecology and evolution.

In this experiment the researchers compared the nitrogen content at LP sites to HP sites. They then went on to say that the increased nitrogen in the LP sites means that more nutrient recycling and therefore more primary production would occur. El-Sabaawi et al. (2015) can't necessarily jump to that conclusion so quickly. They measured one time point. Since eco-evolutionary dynamics is an ongoing process it needs to be measured over multiple generations. They needed to find a portion of the river not inhabited by guppies and measure the primary production there. They then needed to take HP guppies and transfer them to the uninhabited portion of the river. Until the population has evolved into the LP phenotype, primary production, body size and population density should be measured consistently. If they found a difference in primary production from the beginning to the end they could then say it was due to the evolution from the HP to LP phenotype. Until they do this their data is representing one time point and therefore making it not empirical evidence for eco-evolutionary dynamics. It is still important in eco-evolutionary dynamic research because it shows strong evidence for a relationship between the guppy phenotype and nutrient recycling.

Although Utsumi (2015) and El-Sabaawi et al. (2015) results didn't meet all of the criteria needed to determine if eco-evolutionary dynamics are occurring according to Schoener (2011), they did advance knowledge in the field. A study that would meet all the criteria would be very rare and might not be realistic to perform. Therefore, there is enough evidence from both studies to say that rapid evolution can occur fast enough to feedback and affect the ecology of an ecosystem.

The fine details of how eco-evolutionary dynamics work in different ecosystems are yet to be discovered. By studying this dynamic relationship between ecology and evolution scientists get one step closer to understanding the very fabrics of life.

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Author's Note

As a biology major who is a senior about to graduate in a few months I am very grateful to have had the opportunity to spend some of my undergraduate degree researching eco-evolutionary dynamics. This paper was written for the upper division biology class, Theory of Evolution, but the preceding summer I had done research on eco-evolutionary dynamics occurring in estuarine three spine stickleback, so I was familiar with the field. I wanted to give the reader a glimpse into what eco-evolutionary dynamics is and some of the problems faced in this field of research. This paper, and my previous research taught me a lot about ecology, evolution, field experiments and lab methods which are all things that can be practically applied to my major. But I also found throughout this process that eco-evolutionary dynamics can be applied to my life as well. Life is not static, it is dynamic. Our relationships, jobs, and experiences are ever-changing and as the world changes around us it feeds back and shapes us. Sometimes internal change can motivate us to try to change the world which may motivate someone else to change and then the feedback continues. If anything, this has given me hope and faith in the world that we are the solutions to the problems we face in society both environmentally and socially.

I would like to thank Dr. Jabbour for submitting my paper and for being a great professor. Thank you to Dr. Des Roches for being my mentor and introducing me to the field of eco-evolutionary dynamics. I am so grateful to have had the opportunity work and learn from you. Thank you to the writing center, specifically Katherine Hahn, for helping me edit and revise this paper; your help was much appreciated.

The Master Narrative of Colonialism in *Heart of Darkness*

Joslyn Fillman

Joseph Conrad's 1899 novella, *Heart of Darkness*, has earned its place among the canon of colonial literature and scholarship. Told entirely in dialogue, the novella follows the story which seasoned European sailor Charles Marlow tells to his fellow crew members aboard the Nellie. Now far removed from Africa and the ivory trade, Marlow's tale recounts the time he spent as the captain of a river steamboat in the Congo. Conrad uses the figure of Marlow, a reluctant imperialist, to critique the colonial enterprise in Africa, and to expose the justifying narratives of colonialism as ill-conceived and disingenuous. Post-colonial theorist Abdul R. JanMohamed, in his essay "The economy of the Manichean allegory," has classified the text as a piece of "symbolic" colonial literature, meaning that the narrative works to "thematize the problem of colonialist mentality and its encounter with the racial Other" (19). Conrad, aware and critical of the master narrative used to justify and further the colonial enterprise, uses Marlow's story to apply pressure to the configuration of the colonial hierarchy. One tool which Conrad works to problematize is the Manichean allegory, a configuration of the world which oversimplifies reality into hierarchical binary relationships of good and bad, dark and light, civilized and barbaric. Conrad won't let these binaries rest, but instead teases them out throughout his writing.

However, even by JanMohamed's requirements, *Heart of Darkness* at times falls short of achieving a fully realized critique of the colonial project. JanMohamed writes that a "genuine and thorough comprehension of Otherness is possible only if the self can somehow negate or at least severely bracket the values, assumptions, and ideology of his culture" (18). He then goes on to say that the task of "negating one's very being" is "virtually impossible…precisely because one's culture is what formed that being" (18). This inability to "bracket" his own values, assumptions, and ideology is the very obstacle upon which Conrad's project stumbles. *Heart of Darkness* stands as a genuine stab at identifying and discrediting the dominate European narratives of colonialism, but it also, by virtue of its own reliance on the tools of the colonial narrative, at times falls short of its noble goal.

In order to identify and then critique the justifying narratives of colonialism, Conrad employs his characters, principally Marlow, to serve as the mouthpieces of the colonial enterprise. Marlow himself uses the language of the master narrative to define the project, telling his crew member aboard the Nellie that imperialist's bear "a spark from a sacred fire" and asks them, rhetorically, "[w]hat greatness had not floated on ebb of that river into the mystery of an unknown earth?...The dreams of men, the seed of commonwealth, the germ of empires" (5). In this configuration, colonialism exists as a righteous, God-given enterprise, necessary in bettering the world through bringing the "seed of commonwealth" to the uncivilized inhabitants of the "unknown earth." With a heavy reliance on the language of the Manichean allegory, this presentation of colonialism falls easily into JanMohamed's "symbolic"

literature. Conrad, through Marlow, is "thematizing" colonialism and its overreliance on a binary system which positions Europeans as the pinnacle of progress. The narrative which Marlow presents here is one of superiority, where agents of the colonial enterprise go forth carrying "a spark from a sacred fire," their greatness carrying them forth into the dangerous and mysterious unknown. The task of imperialism, then, is a brave and necessary one. But Marlow's relationship to this narrative is complicated, and he is not a complacent imperialist. Marlow presents to his listeners the framework through which the colonial enterprise can be imagined, and then, through the rest of his storytelling, does the work of disproving this initial definition.

Conrad's analysis of colonialism would be incomplete with Marlow as its only mouthpiece, so Conrad offers to us the figure of Marlow's European aunt, a woman whose only true relationship with colonialism is to reap its rewards back in London. Marlow's aunt remains physically and intellectually ignorant of the realities of colonialism in the Congo, and, perhaps because of this, is an avid supporter of the enterprise. She thinks of Marlow and his peers as "something like an emissary of light, something like a lower sort of apostle" whose job it is to work towards "weaning those ignorant millions of their horrid ways" (12). The aunt's words are doing the opposite of what "symbolic" literature attempts: it lacks reflexivity and serves only to, as JanMohamed calls it, "valorize the superiority of European culture" (19). This imagining of the colonial project reinforces a hierarchy which situates Europeans above the natives they conquer morally, intellectually, and innately.

The word "progress" positions the colonial enterprise as one of moral superiority.

Unlike Marlow's aunt, the brickmaker at the Central Station is positioned as a part of the colonial enterprise, and yet he too creates a justifying narrative which he will disclose to Marlow. As the story progresses and the steamboat travels further along the Congo, Marlow meets a fellow European import: the brickmaker. Conrad has the brickmaker's statement echo those of Marlow's aunt, calling Kurtz and people like him "an emissary of pity, and science, and progress, and devil knows what else. We want…for guidance of the cause entrusted to us by Europe, so to speak, higher intelligence, wide sympathies, a singleness of purpose" (25). The colonial enterprise, then, is seen as something inherently good — a sharing of civilized thoughts and ideas, and a bringing of light to the darkness. The word "progress" positions the colonial enterprise as one of moral superiority. The imperialists are to bring "science," "progress," and "pity" to those most in need of the European cause in which the brickmaker imagines men like him play a part.

These justifying narratives are in direct contradiction with what Marlow's story reveals to us about the enterprise in the Congo. Marlow records the justifying narratives he hears from both his aunt and the brickmaker, but he does not reinforce them with one of his own making. Instead, he works to show us the ways in which the enterprise in the Congo is futile, wasteful, and meaningless. As Marlow's boat moves along the coast of Africa, he witnesses a man-of-war shelling an empty stretch of coast, an image which he finds "incomprehensible, firing into a continent" (14). In this instance, we see Marlow's disillusionment. The Europeans opening fire

on an empty coastline stands as an emblem of the wasteful and useless nature of the colonial project in the Congo. Marlow sees no pity or progress here, no enlightenment, only wasteful absurdity. This image does not fit into the master narrative which characters like the Aunt and the brickmaker have been supposing, and instead highlights the futility of the reality which Marlow encounters.

In his meeting with the brickmaker of the Central Station, Marlow witnesses another moment of the colonial enterprise's inextricable lack of meaning. Marlow observes that although this man's job was the making of bricks, "there wasn't a fragment of brick anywhere in the station, and he had been there more than a year – waiting" (24). If the brickmaker possess neither the materials nor the demand to make bricks, why, then, is he here? The brickmaker becomes nothing more than an icon of the European ideals of order and industrialization, things out of place and irrelevant within the context of the Congolese reality. The extraction of ivory and material resources, including labor, in no way necessitates that the Europeans also build houses or schools or hospitals. Bricks, therefore, remain useless to the enterprise, and the brickmaker remains waiting for the promised European values to become relevant to the pillage of the Congo.

Conrad's criticism of the colonial enterprise and, through this, his application of pressure to the master narrative of colonialism, also necessitates that we look again at the role of the Congolese people in his configuration of the project. Returning to the words of Marlow's aunt, the colonial enterprise should be the act of "weaning those ignorant millions of their horrid ways," and yet Marlow's story presents to us very little of this ideal. Instead, we see bodies worked to death in the fulfillment of meaningless labor. As Marlow travels further along the Congo, he encounters the people subjugated to the empirical enterprise. Marlow sees the natives digging massive holes, "the purpose of which [he] found impossible to divine…It might have been connected with the philanthropic desire of giving the criminals something to do" (16). What Marlow describes stands in contrast to the word he uses — philanthropic — and we are forced again to reconcile the reality of the colonial project with the benevolent and generous narratives that preserve it. The illusion of progress here is unsustainable; the holes will amount to nothing but graves, and the "philanthropy" of the Europeans is only, as JanMohamed puts it, another "nondialetical, fixed opposition between the self and the native" (19). Marlow has identified that the nature of the relationship between the Europeans and the natives they enslave only works in one direction, granting the colonialists the power to name terms. The project is labeled "philanthropy," and thus the relationship remains "fixed" and nonnegotiable, operating as one part of a larger narrative of progress and benevolence to which Europe clings.

The juxtaposition of slavery and philanthropy is further complicated by the treatment of the natives which Marlow witnesses in the Congo, and the uncertainty of their position in the colonial enterprise. "They were not enemies," Marlow thinks, "they were not criminals, they were nothing earthly now, nothing but black shadows of disease and starvation lying confusedly in the greenish gloom" (17). The broken and fractured bodies which Marlow describes are the consequences of a pointless endeavor — the digging of holes. This image becomes a metaphor for the colonial enterprise as a whole, and the futility of the master narrative in the face of

colonialism's realities which Marlow encounters as he travels along the Congo.

In the very heart of the Congo, Marlow finally encounters the infamous Kurtz, the Inner Station master. Unlike Marlow, Kurtz is well into the colonial project, and the number one extractor of ivory and material wealth for the European Company. Kurtz's life comes to represent two very different ideals on which the binary of the Manichean allegory rests. At once the head imperialist of the European company, Kurtz also succumbs to "savagery;" taking on an African mistress, sneaking away to perform native rituals (61), and even lining the boundary of his station with the heads of his murdered enemies (57). A dizzying dichotomy between European "civility" and African "savagery," Kurtz's relationship with two very different women — his African mistress and his European fiancé — will become the foundation upon which Conrad will further complicate the binaries between light and dark, good and bad, civilized and primitive as he works to deconstruct the Manichean allegory at work within colonial narratives.

Kurtz's African mistress becomes the site of great ambiguity, for both Kurtz and for the narrative of colonialism which Conrad is working to expunge. After Kurtz's departure from the Inner Station, she moves on the shore "from right to left…a wild and gorgeous apparition of a woman…She was savage and superb, wild-eyed and magnificent; there was something ominous and stately in her deliberate progress" (60). Here the language of the Manichean allegory comes to us front and center. Words like "savage" and "superb," "wild-eyed" and "magnificent," "ominous" and "stately," work together instead of in opposition. Conrad will deny the African Queen nothing; instead she becomes the physical manifestation of the savage/civilized language of the Manichean binary. JanMohamed would refer to this instance as Conrad's acknowledgment of both the African Queen's "identity and difference" in relation to Marlow (19). As JanMohamed states, the Europeans, when "[f]aced with an incomprehensible and multifaceted alterity," which Marlow encounters in the African Queen, "has the option of responding to the Other in terms of identity or difference" (19). By allowing the African Queen her authentic opacity without judgement or interpretation, Conrad denies the master narrative its reliance on the hierarchy of difference. According to Marlow, she is not better nor worse than the European men who watch her nervously from the deck of their steamboat. She is both "stately" and "savage" and neither descriptor holds more value than the other. She is not, Conrad ensures, comprehensible within the confines of the master narrative of colonialism, nor the Manichean allegory it employs to do its heavy lifting.

The second woman we see is Kurtz's intended who, like the African Queen, becomes a confused and complex mixture of both light and dark. The true embodiment of European society and ideals, even Kurtz's unnamed fiancé is more complicated than her symbolic status as all things European, civilized, and safe. Back in London, Marlow seeks out the intended in order to deliver some of Kurtz's papers. Marlow observes that she "came forward all in black with a pale head, floating towards me in the dusk" (73). In the physical description Marlow provides of the intended, she becomes, much like the African Queen before her, the confused embodiment of the language of the colonial enterprise. Dressed in black and pale in complexion, her worth is measured by the light she provides to a dark room, by the ivory brought forth out of the darkest reaches of the earth and supplanted here in her home. Looking upon her image, Marlow thinks, "I know that sunlight can be made to lie too" (72). Conrad will

not let the simplistic Manichean idea of light and dark rest and so instead creates characters that span the two categories, working to supplant the allegory as it operates within the master narrative of colonialism.

Up until his interaction with the intended, Marlow has been Conrad's steadfast mouthpiece for critiquing colonialism and the European narratives which justify the continued pillage of Africa. However, Marlow's conversation with the late Kurtz's fiancé becomes the cardinal moment at which Marlow himself becomes a purveyor of the master narrative of colonialism, a narrative which he has already identified as a blatant, self-serving, reprehensible falsehood. When the intended asks Marlow for Kurtz's dying words, Marlow lies and, in doing so, creates an alternative, more palatable version of the imperialist's final moments. We know that Kurtz's famous last words were, "[t]he horror! The horror!" and yet Marlow tells the intended that her fiancé died with her name on his lips (69). Marlow creates an alternative story for Kurtz: he went to the Congo as an "emissary of light" and ultimately subdued and conquered the darkness which surrounded him, thereby fulfilling the justifying narrative of colonialism. Marlow admits that telling her the truth would have been "too dark – too dark altogether," and so reverts again to the Manichean allegory which configures Europe as the idealized center of light and purity – a reality which Marlow attempts to protect with his lie (77). In shielding the fiancé, Marlow has shielded the whole enterprise.

One could argue that Marlow's lie to the intended is Conrad's symbolic warning against the perpetuation of a false narrative or, more critically, that Conrad has missed an opportunity for true change-orientated criticism. Regardless, Marlow's lie to the intended — and, in turn, to all of Europe — has complicated JanMohamed's categorization of *Heart of Darkness* as a "symbolic" piece of colonialist literature as one that "confine[s] itself to rigorous examination of the 'imaginary' mechanism of colonialist mentality" (20). Marlow certainly does this, proven by his continued emphasis on the insufficient and dangerous justifying narratives which uphold the colonial enterprise. But he has not been able to confine himself to this critique alone. His narrative often depends upon the very tools which he seems to so ardently oppose. In finding the truth "too dark altogether," Marlow becomes, willingly, at a critical moment of potential revelation, the purveyor of a myth which no one will confront. Is *Heart of Darkness* a truly "symbolic" text if Marlow's criticism extends only to those who will do nothing, and never goes so far as to confront the Europeans who most need to hear the myth debunked? This is more a criticism of Marlow than of Conrad, and yet Conrad too relies on that which he opposes.

The narrative which justifies colonialism in *Heart of Darkness* is, most essentially, a story about the progress of mankind. It demands a timeline, one which Conrad easily accepts throughout his writing, and one which Marlow promotes through his act of storytelling. JanMohamed writes that colonialist literature will portray "the supposed inferiority and barbarity of the racial Other, thereby insisting on the profound moral difference between self and Other" (23). Conrad, at times, falls into thinking of himself and Europeans like him as possessing a "profound moral difference," even as he works to recognize the alterity of the native Other. At one point Marlow refers to the natives as "prehistoric man," and says of him and his crew members, "[w]e could not understand because we were too far and could not remember because we were traveling in the night of first ages, of those ages that are gone,

leaving hardly a sign – and no memories" (35-36). This passage manages to do the work of both recognizing the opacity of the natives, and, more importantly, the inability of the European men to understand them, yet it also depends upon an idea central to the master narrative of colonialism and to a Manichean configuration of the world. Conrad relies on a timeline which indicates a later and an earlier, a civilized and a savage, a developed and an undeveloped, a superior and an inferior. This timeline becomes the story of the progress of mankind, and it is a timeline embedded in the justifying narrative of colonialism. *Heart of Darkness* oscillates between the self-awareness of "symbolic" literature, and the hierarchical thinking which its European author could not escape. Conrad, who had lived and worked in the Congo, could not quite bring himself to deny that he saw himself as "too far" removed from the "prehistoric man" which he "could not understand" — and this too is an act of Manichean proportions.

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Author's Note

I imagine it's difficult to complete an English program without reading Joseph Conrad's *Heart of Darkness* at least once. A novella which has haunted my studies, I have not always been a fan of Conrad or his writing. The story Marlow tells his crew members aboard the Nellie is an interesting and important piece of literature, to be sure, but not a very glamorous one. When I found Conrad again on the syllabus of a required English class, and this time in my fourth and final year at Saint Mary's, I was weary. Professor Ed Biglin's Post-Colonial Studies course, however, would prove vastly different than any class I'd taken before, and I'd end the semester with a new understanding and appreciation for what Conrad is doing through the telling of Marlow's story.

Thank you to Professor Biglin for bringing me back to Conrad with new eyes. Thank you also for suggesting my essay for Spectrum, and for all of your invaluable guidance during the writing and revision process. Thank you to Nick Stillman at CWAC for sharing with me his exceptional editing skills and advice, without which this essay would be a pale imitation of what it is now. And thank you to all the many professors at Saint Mary's who have affirmed for me, again and again, that what we do as English majors is valuable and important.

Attack of the Factions: The rise of Party Politics in America

William Lane

In a certain sense, the striking thing about the founding fathers and political parties isn't that they emerged despite the founders' hopes, but rather that the founders hoped they could be avoided in the first place. As James Madison and others routinely discussed while framing the Constitution, factions are inevitable in republics. In the US, there was the divide between those who wanted a strong federal government and those who wanted a weaker one, between the urban and rural elites, and between different state and regions. The framers of the Constitution apparently assumed these factions would squabble independently, but instead they quickly found that it made more sense to band together with those with shared interests and push a united agenda. Combined with the specific structure of US elections and the fact that some founders viewed each others' visions as fundamentally contrary to the revolution, it only took a few years for the basic two-party system to emerge. John Adams, Thomas Jefferson, and other founders increasingly adapted their nonpartisan ideals to the partisan reality.

As soon as the Constitution was secured, the old coalition that had brought it about fell apart. Madison, formerly one of Alexander Hamilton's closest partners in pushing the Constitution's ratification, broke with him as early as 1790 over whether the federal government should assume the states' war debt (Ellis, 54-56). Two new factions began to coalesce. On one side were the Hamilton-inspired voices who would ultimately be called the Federalists, adopting the name previously used for proponents of the Constitution's ratification. Centered on the urban merchant class, they envisioned a strong, centralized union with a powerful federal government that stood above the states. Consolidating the new government politically and economically, shoring up its poor credit, and stimulating industry and commerce on a national level were key parts of the Federalist agenda. The Federalists also felt that politics should be left in the hands of those who proved themselves capable through economic success, and they therefore supported higher property requirements for suffrage. Internationally, the Federalists looked towards Britain as a role model and wanted to rebuild relations with it sooner rather than later.

The other side, unofficially led by Thomas Jefferson, came to be known as the Democrat-Republicans. Representing the interests of farmers and planters away from the port cities, they favored a more decentralized, agrarian republic that left more power in the hands of the states. They were not necessarily opposed to the new federal government like the Anti-Federalists were, but they did not want it to subsume the states as sovereign entities. To them, the Federalists' English-inspired agenda marked a return to what the colonies had revolted against in the first place. Priding themselves as the truer party to revolutionary ideals, the Democrat-Republicans saw themselves as the champions of the "ordinary" people, and as such they favored lower voting requirements and stronger American support for France as a partner in revolution.

The clashes over these issues were already underway during Washington's first term, before the parties even existed. By the time of Adams' presidency, the parties' relations, as Joseph

Ellis writes in his book, *Founding Brothers*, "had degenerated into ideological warfare" (Ellis, 186). The accusations reached conspiratorial levels. Democrat-Republicans accused the Federalists of plotting war with France and the establishment of a monarchy (Lewis, 86). The Federalists tied the Democrat-Republicans to the French Revolution's violent excesses and hinted that they were conspiring with France to overthrow the insufficiently radical American republic. Some of the vitriol was probably just political maneuvering, a way to drum up support come November. There was no implicit political code of conduct yet as to what were and weren't acceptable attacks. Similarly, argues historian Seymour Lipset, the idea of the opposition's right to exist and express its views was not fully established either. The Federalists were most famous in this area with the Alien and Sedition Acts, but the Democrats-Republicans also engaged in sporadic suppression of Federalist voices after gaining power in the 1800 election (Lipset, 184).

To an extent, many Founders genuinely saw each other's visions for America as fundamentally incompatible with their own. Their rivals' ideas were either counterrevolutionary ideologically or counterrevolutionary in the sense of driving the new nation to suicide. For example, it was not just that Hamilton's financial program would indirectly make Virginia pay taxes for New England's war debts. To Jefferson, the English-inspired plans smacked of the very system Americans had revolted against in the first place. John Jay's Treaty with England, meanwhile, was nothing short of a betrayal of the Revolution's meaning outside the nation's borders. Conversely, from Hamilton's point of view, Jefferson was trying to leave the new nation commercially crippled, unable to get foreign creditors to take it seriously, and in short, stillborn. Likewise, the Democrat-Republicans' ideologue-like commitment to France not only risked war with England, but it suggested a disturbing equation of American Revolutionary values with the French Reign of Terror.

Despite the treason charges and venom, the two sides did compromise and hold common ground on key issues. After a series of closed door meetings mediated by Jefferson, Madison let Hamilton's plan for the federal assumption of state debts pass. Admittedly, the compromise occurred at a very early stage of the Founders' schism into Federalists and Democrat-Republicans; within two years Jefferson regarded the deal, in the words of Ellis, as "the greatest political mistake of his life" (Ellis, 51). On a broader level though, both the Federalists and Democrat-Republicans more or less accepted the legitimacy of the Constitution. It is true that the Democrat-Republicans incorporated the old Anti-Federalists, and it is also true that in the wake of the Alien and Sedition Acts, Madison had to talk Jefferson out of inserting a threat of secession in the Kentucky and Virginia Resolutions condemning the laws (Ellis, 199-200). Still the party leadership remained committed to the Constitution. The Federalists would be defeated through elections, not dissolution. For their part, some Federalists considered unconstitutional maneuvers to prevent a Jefferson presidency in 1800, but they gave way to those who felt it was more important to preserve the Union than to remain in power (Lewis, 88-90).

The ways that key Founders such as Washington, Adams, and Jefferson fit into the new dynamic varied greatly and did not necessarily reflect their previous political niches. Washington, remained the stabilizer that he had been since the beginning of the federal government. Although his sympathies were Federalist, he refrained from throwing himself into partisan warfare. Together with his modest personal ambition and untouchable popularity, this went a long way to stabilizing the new republic as a common symbol for patriotism, according to Lipset (176). Hamilton's role in the

political dynamic did not change either, in the sense that he always pushed for his Federalist agenda with the same partisan resolve, but by the time Adams assumed the presidency, he was involved in a major split within the Federalist party. For his part, Adams seemed to imagine himself as a Federalist but on his own terms, and essentially wanted to have it both ways. He struggled with Hamilton for party leadership and was ultimately the one who signed the Alien and Sedition Acts, but at the same time he initially reached out to Jefferson and genuinely saw himself as above the party fray. However, this only succeeded in alienating both sides, and he was out of office after one term.

For his part, Adams seemed to imagine himself as a Federalist but on his own terms, and essentially wanted to have it both ways.

On the Democrat-Republican side, Madison's and Jefferson's political fates intertwined closely. Despite his dislike of argument, Jefferson adapted remarkably well to the new partisan reality, successfully bringing down his former-friend-turned-opponent Adams and propelling his party (and himself) to the presidency in 1800. The Federalists may have crossed the line that Ellis says existed in Jefferson's mind, beyond which argument became ideological holy war. Another factor may have been Jefferson's remarkable ability to smooth over internal contradictions. Ellis implies that Jefferson frequently did not consciously realize his own political maneuverings, papering them over to maintain his sense of mental harmony. By contrast, of the five Founding Fathers presented, Madison probably best understood how to work in partisan politics. Shifting from Hamilton's side to his enemies', he acted as something of Jefferson's manager, not only explaining the new realities and how it was unwise to bind himself to Adams, but also knowing what not to tell Jefferson in order to preserve the mental facades his friend needed to function.

Ultimately, the election of 1800 heralded the decline of the Federalist Party. While Jefferson's election was close, down-ballot Federalists suffered great losses (Ellis, 202-203). The party ceased to be a viable political force over the following years. The federal government remained relatively weak. Yet the captains of industry and commerce that Hamilton championed did not fade away with their party. They expanded with the new nation, proving that they did not actually need any more than the skeletal framework left for them by Hamilton. In this sense, the Democrat-Republicans won, but the Federalists did not actually lose.

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Author's Note

I have a love-hate relationship with politics. I am repulsed by its divisiveness and constant uncertainty, but as a history major I'm all too aware of how intertwined my field is with politics. You can't understand American history without understanding American politics, and you can't understand America's politics without understanding its history. Right now it is particularly informative to look back and see just how the all-important two-party system emerged, or what the original idea was behind the Electoral College. Conversely, we can look at how movements came and went in American history and how parties cycled in and out of power, and we can derive patterns that could apply to the present.

Of course, we have to be careful not to draw too many conclusions about today's politics from history. History is also littered with incorrect predictions, and it is not possible to ever shake one's own biases, know the relevant factors ahead of time, or draw perfect parallels between the past and present. Neither the Federalists nor the Democrat-Republicans readily correspond with the modern Democratic or Republican parties, for example. The history of the early United States can help us understand how we as a nation got to where we are and perhaps even where we might go, but it is not a roadmap.

I've always been interested in how ideologies grow and develop, and how they are realized in politics. Still, I never would've dreamed that what started as a routine paper for my class on the American Revolution and early republic might make it into *The Undergraduate Spectrum* publication. I need to thank Professor Carl Guarneri for nominating this paper even if I wasn't confident in it at first, and for all the help and guidance he gave me throughout my years at Saint Mary's. I owe a lot to him.

Circular Logics

Colin Jones

I: Introduction

Peter Kalkavage captures best what motivated the Polish astronomer Nicolaus Copernicus to overturn the ancient Greco-Roman astronomical model solidified by Ptolemy in his *Almagest*. Kalkavage writes: "[Ptolemy] is not setting out to 'explain the world' sense of getting at the true causes of motion and paths of the heavenly bodies. [...] The absence of a single mathematical account of the whole [universe] in the *Almagest* horrified Copernicus" (6). What Kalkavage elucidates is Copernicus's motivation to upend the astronomical model presented in the *Almagest* because, for all of Ptolemy's brilliance, he was unable to explain his many hypotheses on cosmic motion with a single unified system.[1] Copernicus saw that Ptolemy was unable to unite his various theories on how the motion of the night sky revolved in pattern by a singular cause. Instead, Copernicus saw Ptolemy's explanations as disjointed: the movement of the sun looked nothing like the movement of the planets, and the movement of the planets were dissimilar in several cases themselves.

This paper will explore the most fundamental ways in which Copernicus and Ptolemy differ in their approaches to ordering the heavens. Although both sought to answer cosmological questions for the sake of the divine, Ptolemy sought to explain the "eternally unchanging" for the sake of Aristotelian wisdom (*Almagest*, 1.H7) and Copernicus sought to explain the workings of the universe as a means of exalting God. Where both authors diverge is not their motivations, but their methodologies: while both authors use circular motion as a way of explaining the wanderings of the planets (*Almagest*, 1.H27; *Revolutions*, 1.Ch4), Copernicus states that this is due to a "constant law" that, from the observer's vantage point, merely appears nonuniform (*Revolutions*, 1.Ch4). This is significantly different than Ptolemy's methods, which, by simply matching circular-movements to data, fail to produce uniform orbits for the planets. From these investigations it becomes apparent that the difference between the two authors is a fundamental one; specifically, that Ptolemy lacks a general "principle governing the order in which the planets follow one another" (*Revolutions*, 1.Ch9) analogous to that which Copernicus uses to construct his cosmological model. This paper will explore and contrast these two author's methods, and seek to explain the pertinence of their work.

II: Ptolemy's Circles

Both authors rely on circles to explain the phenomena of the heavens. The reasoning for this is simple in both cases: both authors seek to explain the movement of stellar objects — the Sun, the Moon, and the "wandering" planets — in a way that is A) uniform, in a non-erratic manner, and B) repeating, composed of discrete intervals that return to their original positions. We see these conditions satisfied in Ptolemy:

> [...] the sun, moon, and other stars were carried from east to west along circles which were always parallel to each other [...] and that the periods of these motions , and also the places of rising and setting, were, on the whole, fixed and the same (*Almagest*, 1.H11).

1 "System" here should not only be taken as a set of connected things or parts forming a complex whole, but also one that functions due to a singular, common, governing principle.

And in Copernicus:

> [...] the motion of the heavenly bodies is circular, since the motion appropriate to a sphere is rotation in a circle. By this very act the sphere expresses its form as the simplest body, wherein neither beginning nor end can be found, nor can the one be distinguished from the other, while the sphere itself traverses the same points to return upon itself (*Revolutions*, 1.Ch4).

Both authors clearly agree that circular motion best describes how the stellar objects move predictably and seem to return to their original positions. However, these two authors vary on how they treat the influence of this circular motion. Ptolemy uses circular motion to explain particular stellar phenomena individually and not systemically. Instead of arguing that all stellar objects move in the heavens using a single circular motion, he argues that many different circular motions might compound into a single, non-uniform motion. To understand this progression, one must first examine how Ptolemy explains the movements of the Sun.

Ptolemy answers the phenomena of the non-uniform motion of the Sun by compounding several circles onto each other. He tackles the phenomena of the Sun in Book 3, where he lays out two hypotheses to describe the Sun's motion. According to Ptolemy, the Sun moves around a motionless Earth on either an eccentric circle[2], or on an epicyclic circle[3] traveling itself on a deferent[4]. This creates a sort of planetwide optical illusion: the Sun appears as though it's traveling in a non-uniform motion[5], but in Ptolemy's model that is only because the eccentric or epicyclic circles create a displacement effect between the observer's position and the unseen circles guiding the Sun's motion in a uniform manner.

Ptolemy uses the tools of these hypotheses to construct far different explanations for the planets. In Book 9, Ptolemy sets out to explain the planets' paths about the Earth in a similar fashion to the Sun. However, unlike his two models on the Sun's motion, Ptolemy's new hypotheses don't result in circles in the sky, but swirling ribbons. He returns to the use of epicyclic and eccentric circles to explain apparent non-uniform motions circularly: placing a planet's epicycle on a deferent also eccentric to Earth. Attempting to explain the odd, non-conforming case of Mercury's movement, Ptolemy introduces an "equant point":

> For Mercury alone, the centre of the deferent is a point whose distance from the centre of the circle about which it rotates is equal to the distance of the latter point towards the apogee from the centre of the eccentre producing the anomaly, which in turn is the same distance towards the apogee from the point representing the observer (*Almagest*, 9.H253)

Ptolemy produces a center for the deferent widely off from the rest of the planet's rotations. Ptolemy's sky then becomes a swirling ballet of planetary rotations, with the Sun moving uniformly in a circle, while the other planets move steadily in loops and ribbons around a static Earth. Although Ptolemy uses consistent logic in his method of adducing planetary motion, he seemingly modifies his hypotheses with no care for systemic consistency — preferring instead to find *ad hoc* solutions for

2 That is to say, a circle whose center is not shared with Ptolemy's center-of-the-universe, the Earth.
3 A smaller circle a stellar body travels on, centered on the perimeter of a larger deferent.
4 The deferent is a medieval term for a circle, centered on Earth, on which a stellar bodies' epicyclic orbit is itself centered on.
5 Speeding-up and slowing-down in accordance with the seasons.

his problems. By creating the so-called equant point, Ptolemy introduces an additional convention to explain his hypotheses that is inconsistent with the rest of his premises in the *Almagest*. This is the core of the pseudo-scientific Ptolemaic model: piecemeal alteration of hypotheses without regard to a singular, governing principle. This is what Copernicus found so revolting.

III: Copernicus's Circles

Copernicus, on the other hand, set out his cosmological model with consistency in mind. In Book 1, Chapter 4 of *Revolutions*, Copernicus lays out a case for ultimate uniformity of circular motions in the heaven. Speaking of the planets, Copernicus at first states, "[...] their motions are circular or compounded of several circles, because these non uniformities recur regularly according to natural law" (*Revolutions*, 1.Ch4). However, as Copernicus advances his argument he modifies this claim, portending that stellar bodies cannot be ascribed these "compounding movements" due to the motion of a single sphere. He concludes that these motions merely "appear nonuniform to us" (*Revolutions*, 1.Ch4), and that in actuality they make uniform orbits around the sun (*Revolutions*, 1.Ch10). He arrives here by a reversal of Ptolemy's fundamental principles: the Earth now orbits the Sun, rotates on its own poles from west to east, and wobbles on its own axis (*Revolutions*, 1.Ch11). This monumental departure — from a geocentric solar system to a heliocentric one — wasn't made lightly on Copernicus's part. Copernicus was upending centuries of astronomical dogma with his new heliocentric model, but it was a conclusion delivered with even-headed logic. Copernicus could demonstrate his new model with a consistency Ptolemy lacked. By assigning Earth these three motions instead of the heavens, Copernicus was able to keep the heavenly bodies moving around the Sun in simple, uniform circles — the apparent non-uniformities in the sky coming from our own wobbling, twirling view looking up at the static Sun and the planets revolving it.

Copernicus's system of a static sun and a moving Earth is an example of how Copernicus used circles as governing principles of his work.

This phenomena is described most beautifully by Copernicus in Chapter 11. Setting the Sun in the center, Copernicus has the Earth rotate around it over the course of the year. The day/night motion will combine with our own rotation to cause the appearance of the Sun traveling through the order of the Zodiacal signs[6], when in actuality it is due to our rotation around it. The axial tilt and its "wobble" effect — the Earth rotating around its poles unevenly, like a slowing teetotum — then produce appearance of a speeding or slowing Sun by shifting how much of our local sky is exposed sunward in a year. In one deft maneuver, Copernicus explains the illusion of the Sun's movement and an accurate timing of the seasons. Although not explicitly stated in this figure, this same phenomena would produce the appearance of "wandering motions" of the planets, which are actually following fixed orbits. Copernicus's system of a static sun and a moving Earth is an example of how he used circles as governing principles of his work. Instead of needing special cases like Ptolemy's equant point, Copernicus constructs a system that is self-consistent with its base assumptions, requiring no *deus ex machina* convention to remain logically sound. The circular motion of Copernicus was what ordered a flighty heaven, and produced a consistent model predicated on

6 The twelve constellations that historically formed the Zodiac seemed to rotate in the night sky over the course of the year. The Sun's traveling through the Zodiac was a description of this visual phenomenon.

conformity rather than exception.

IV: Conclusion

In "Why we read Ptolemy", Kalkavage explains to St. John's students that they read Ptolemy, in part, to understand the weight the Copernican Revolution had on antiquity's model of the cosmos. As Kalkavage rightly points out, Copernicus did not observe an additional critical "thing" that Ptolemy failed to perceive (2). If one inspects Ptolemy expecting ineptitude they will be harshly surprised: his sprawling proofs, even in his first book, out-punch Copernicus's. What Copernicus did to overturn Ptolemaic thought was not produce vital new information, but maintain a set of self-consistent premises that required no outside postulates to remain congruent. What this paper has found at the end of its exploration is thus a celebration of two brilliant astronomers, and a clear moral lesson regarding their methods.

However, more can be gained by the study of Ptolemy than mere context for Copernicus: what Ptolemy and Copernicus represent are two competing ways to solve problems. Ptolemy demonstrates an intensive exercise in constructing complex hypotheses to explain data. Ptolemy makes constant reference to the ancients who preceded him and cataloged the heaven's movements. Copernicus makes comparably fewer references to the hard data, but ultimately modern scholars have found Copernicus, not Ptolemy, correct. The two authors even used similar geometric tools to aid their explorations, and yet Ptolemy fell far short. At the end of its exploration, this paper suggests that Ptolemy was attempting to explain each phenomenon in systemic isolation, while Copernicus was viewing them as part of a system ordered by concordant governing principles. Both skills demonstrated remain vital today — both in mathematics and in life's general tool box. A study of Ptolemy can instruct one on a rigorous tutorial on how to formulate ideas faced with reams of data — and the perils of doing so without consistent principles. Ultimately, what reading Ptolemy and Copernicus might demonstrate is how best to utilize the information presented to us, and how best to employ the circles in our logic.

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Colin Jones

Author's Note

My name is Colin Jones, and I am a Sophomore in the Integral Program pursuing a minor in Economics. When asked to reflect on "why I wrote this piece", I had naught to do but to gesture widely at the world around me. We find ourselves in a time where powerful figures quibble over "alternative facts" and hyperbolic stand-ins for reality while barbarians persecute difference. We stand at the precipice of great economic and social change, at times nearly rudderless in unending waves of new technologies that fundamentally mutate our world. I wrote this paper because Truth in an age of chaos appears a scarce commodity — which is why a classical liberal arts education is so desperately important.

It is my enduring belief that Truth will save the world. In the Integral Program, students are tasked with, among other things, understanding, challenging, and validating the Great Ideas and arguments of history. For my second paper in last semester's Math Tutorial, I chose to write a comparative analysis of two great authors' works in part to extol the virtues of reason in a world where it is threatened. Reading Ptolemy and Copernicus allows us to learn how to dissect, discuss, and demonstrate ideas and how to form them, and allows us thus to divine what leads us to — or pushes us away from — Truth. By learning, remembering, and practicing the art of analysis of great ideas, we enable Truth, and embed it in our speech and thought.

I owe countless thanks to my family and friends; CWAC and my editor for this piece, Katie Hill; and Professor Ted Tsukahara along with the whole Integral Program.

The Effects of Body Image on Exercise Motivations

Meagan Lasecke

Regular exercise is known to be essential for both physical and mental health at all ages. The media and various socio-cultural expectations about males and females heavily affect individuals' self-perceptions and exercise motivations. It is important to understand the relationships amongst body image, psychological health, and exercise incentives because of rising obesity rates and sharp declines in physical activity. Though these relationships have been studied extensively in certain populations, others need further examination.

Anderson, Eyler, Galuska, Brown, and Brownson (2002) examined an ethnically and racially diverse group of women and made a unique distinction between satisfaction with body image and women of different ethnicities. They found that Non-Hispanic white women reported lower levels of body satisfaction than other racial/ethnic groups and that body image satisfaction among this group was associated with factors such as lower body mass index (BMI), lower educational level, better self-related health behaviors and greater age. They suggested that future researchers specifically study Hispanic and American Indian/Alaskan Native women in order to examine weight perceptions across ethnically diverse groups. Thogersen-Ntoumani and Ntoumanis (2007) addressed a gap in the research by studying body image concerns and eating disorders in female aerobic dance instructors who may be particularly prone to body dissatisfaction and social physique anxiety. Castonguay, Pila, Wrosch, and Sabiston (2015) solely studied male populations since there is a presumption in the literature that women experience more bodily dissatisfaction than men. Future studies need to further explore this area to strengthen the finding that this assumption is false. Ingledew and Markland (2006) suggested that future studies expand their research on gender differences regarding the motivational impact of body mass and body image — and how these discrepancies affect relative autonomy for exercise — to include larger samples and different age groups. Gillison, Standage, and Skevington (2011) advised that future studies examine the effects of changing social environments on body image and exercise motivations. Additionally, Gillison et al. (2011) and Ingledew and Markland (2006) were concerned about social pressures from the media, particularly on adolescents, to achieve the unrealistic "ideal physique." Taking these suggestions into consideration, a study involving an ethnically and racially diverse group of both women and men is needed.

Understanding the motivational factors behind exercise in relation to body image has long been studied through an application of the Self-Determination Theory (SDT). Thogersen-Ntoumani and Ntoumanis (2007) summarized SDT to describe how motivation towards any behavior can be extrinsically motivated, intrinsically motivated, or amotivated. The SDT uses a continuum of self-determination — or relative autonomy — to indicate the degree to which a behavior has been internalized and integrated into one's sense of self so that the behavior is performed freely, without outside pressure.

Amotivation is defined as a lack of intrinsic and/or extrinsic motivation, as well as the

perception that the associated activity will not be beneficial. Extrinsic motivation consists of four different types of behavior regulations: external, introjected, identified, and integrated. External regulation is the lowest level of extrinsic motivation. For example, individuals engage in behavior because of a reward or punishment that compels them to do it; they lack self-determination. Introjected regulation involves behavior to improve feelings of self-worth, or to avoid shame, but not out of feelings of compulsion. Identified regulation consists of behavior motivated by the value in the action or the importance of it. Finally, integrated regulation entails activity performed willingly without outside pressure and fully unified into an individual's sense of self (self-determination). Intrinsic motivation similarly involves activity engaged in for the sole purpose of enjoyment and inherent interest. According to SDT, when psychological needs for competence, autonomy, and relatedness foster the production of self-determined regulations, individuals increase exercise adherence and positive physical self-perceptions. Thus, SDT is often used as a theoretical framework to anticipate exercise behavior and the motivations behind it, as well as a tool to increase adherence to physical activity. Finally, according to Ersoz (2016), dispositional flow is another key factor to promote exercise adherence. Dispositional flow occurs when an individual is completely engrossed in an activity, losing awareness of time and the surrounding environment. It is caused by self-determined motivation and drives individuals to continue a behavior in order to achieve the rewarding state of mind and the prime experience of it.

Summary of Previous Literature

Looking at previous research, it appears that certain populations still seem to be underrepresented. Some research has examined only adolescents, both males and females. Others studied adult women in general, focusing solely on overweight and obese females. Some were unique in the populations they studied. For example, Castonguay et al. (2015) felt that there was an assumption in the literature that women experience more body dissatisfaction than men. Thus, they felt it was important to study male populations to address this research gap. Thogersen-Ntoumani and Ntoumanis (2007) felt that there were many unanswered questions in the literature and believed that physical activity participation could actually be increasing body image concerns. They studied male and female aerobic instructors whose bodies are constantly on display and who therefore experience exacerbated physique concerns. Anderson et al. (2002) seemed to focus on potential differences in self-perceptions and exercise motivations amongst various ethnicities. However, the researchers only examined overweight and obese women through a national survey; it was not an experiment.

Many previous research studies used either the first or second version of the Behavioral Regulation in Exercise Questionnaire (BREQ). This seems to be due to the fact that many researchers are focused on the motivation continuum proposed by the SDT. While Ingledew and Sullivan (2001) and Anderson et al. (2002) did not use the BREQ instrument, their studies are both somewhat recent, and the majority of past research utilizes it. Thogersen-Ntoumani and Ntoumanis (2007) did not measure BMI, however, they did use a variety of other questionnaires, such as Basic Need Satisfaction in Life Scale, two subscales from the Eating Disorder Inventory-2 (EDI-2), the Social Physical Anxiety Scale (SPAS), and the physical self-worth subscale from the Physical Self-Perception Profile (PSPP). Some previous research studies have collected participants'

BMI directly via height and weight, whereas others use self-reported data (which could be subject to bias). Pearson and Hall (2013) used Duel-energy X-Ray Absorptiometry (DXA) to assess body composition. Other instruments used amongst previous research were the Leisure-Time Exercise Questionnaire (LTEQ), the Exercise Motivations Inventory version 2 (EMI2), the Weight and Body-related Shame and Guilt Scale (WEB-SG), the Physical Self-Esteem (PSE), the Physical Self-Description Questionnaire (PSDQ) and various Likert scales to assess body and need satisfaction.

Comprehensively, the general finding amongst previous studies is that physical activity is positively associated with relative autonomy for both males and females. Furthermore, those individuals that have autonomous (self-determined) motivations for exercise, instead of extrinsic motives, are more likely to report higher perceived physical self-worth and to adhere to their exercise regimen. The reverse of these results was also found: subjects who maintained consistent exercise participation reported higher identified regulation, introjected regulation, competence, relatedness, and body satisfaction.

Overall, the literature seems to vary in the instruments used due to the specific research question they had and the type of claim they were making (e.g., frequency, association, causal). In general, the articles reported fairly high rates of validity no matter which instrument was used, but the studies that used some version of the BREQ reported especially high rates. Accordingly, this current study will utilize the questionnaires most pertinent to my research question and population, such as BREQ, SPAS, PSPP, and the EMI2.

In addition, this study will further examine whether various socio-cultural expectations affect genders and/or ethnicities in different ways, and examine if some groups are affected more than others

Additionally, Ingledew and Sullivan (2001) found that body image issues develop during adolescence. In another study, Ingledew and Markland (2006), the researchers found gender differences regarding predictors of relative autonomy. Amongst males, body mass and body size discrepancies predicted relative autonomy, whereas body size discrepancies were the only predictors of relative autonomy in females. The researchers hypothesize that this gender difference may be a consequence of various socio-cultural expectations for males and females in Western society; females are expected to be thin and toned, whereas males must be neither thin nor fat, but have a muscular mesomorph build.

Purpose

Considering previous research, a study with a sample that is more diverse and representative of the population is needed. Therefore, the purpose of this study is to examine the relationship between self-perception and exercise regulations amongst an ethnically and racially diverse group of males and females, while simultaneously addressing the assumption that women experience more body dissatisfaction than men. In addition, this study will further examine whether various socio-cultural expectations affect genders and/or ethnicities in different ways, and examine if some groups are affected more than others. My hypothesis is that Non-Hispanic white females and males will report lower levels of body satisfaction than other racial/ethnic groups due to societal pressures.

Amongst males, body mass and body size discrepancies will predict relative autonomy, whereas in females, body size discrepancies will be the only predictors of relative autonomy. Thus, I predict that most individuals who have low levels of self-perception will be extrinsically motivated to exercise.

In light of increasing media pressures and alarming obesity rates, this study will be valuable because it will provide further understanding of whether or not culture plays a role in body image. It will produce insight into creating potential strategies and/or exercise programs that are designed to foster healthy behavior regulations toward exercise and positive body images. In addition, the study will address the rising obesity rates and the socio-cultural expectations about body image that both males and females are faced with each day.

Method

Participants

Five hundred college students, both males and females between the ages of eighteen to twenty-four, from five colleges in the west will be recruited to participate in this study. A sample of this magnitude was chosen because there is a possibility that some students may not have the time to participate in an 18-week cardiovascular program. They will also be asked to complete several questionnaires relating to self-perception and behavioral regulations. The goal is to obtain a sample that contains an equal proportion of males and females from all ethnicities and races in order to increase the external validity (generalizability) of the study. I am choosing this population because young adults tend to experience heightened body image concerns. I am interested to see if this will affect their behavioral regulations toward exercise. I also selected this population out of concern to the well-being of the participants and their risk of harm; college students tend to be less prone to injuries from exercise (most engage in some amount of leisure time physical activity), than middle to older aged adults. Few studies have yet to examine a diverse population of both male and female young adults with special attention to social media influence on physique concerns and exercise motives. Thus, college students are a great population to study since they are typically very involved with social media and very aware of their own body image, and how they are perceived by others.

After approval is received from each of the colleges' IRB, participants will be invited to partake in the study. In order to recruit the participants, permission to access all the students' ID numbers through the registrar's office will be obtained. All the female students will be assigned an even number and all the male students will be given an odd number. Next, a computer will randomly generate 50 even numbers and 50 odd numbers from the population of each of the five colleges to gather a sample totaling to 500 students.

Eligibility requirements are minimal, students must be: enrolled at one of the five colleges, at least the age of 18, not pregnant, not on any current exercise program, and willing to participate in this 18-week cardiovascular program. Preferably, students should be cleared by a doctor prior to participating in the study and should not have had any recent injuries or surgeries.

Instruments

Overall, previous research studies seem to vary in the instruments used due to the specific questions the researchers had and the type of claim (e.g., frequency, association, causal) they were making. In general, the articles reported fairly high rates of validity no matter which instrument

was used, but the studies that used some version of the BREQ reported especially high rates of validity. This current study will utilize the questionnaires most pertinent to my research question and population, such as BREQ, the SPAS, the PSPP, and the EMI2. Many previous research studies used either the first or second version of BREQ. This seems to be due to the fact that many researchers are heavily focused on the motivation continuum that is part of the SDT. Since this current study is also using SDT as a focal point, the BREQ will be incorporated. All of these instruments have demonstrated high validity and reliability and have been supported by many researchers in previous studies. For example, Thogersen-Ntoumani and Ntoumanis (2007) reported that BREQ had a construct validity and internal reliability score that ranged from .76 to .90 and that SPAS had an internal consistency coefficient of .90 and minimal social desirability bias.

Procedures

Four colleagues and I will each be in charge of monitoring and guiding one sample from one of the five colleges through the study. An email will be sent out asking students if they are interested in participating in this study. Students who are interested will be invited to meet with the experimenter and the informed consent form will be distributed to each participant. At this meeting, students will receive a brief introduction about the purpose and procedures of the study and will be given the opportunity to ask the experimenter any questions. The experimenter in charge of the given college will emphasize the students' rights to confidentiality and will explain that all personally identifying information will be removed before data analysis and scoring. Participants will be informed of their right to withdraw from the study at any point with absolutely no consequence. Lastly, the participants will be given a detailed overview of the 18-week cardiovascular exercise program. Out of convenience and safety for the students, all aspects of the study will be conducted in the recreation center at the given college.

After obtaining informed consent from the participants, the students will complete a demographics form and have their BMI measured via height and weight by a trained research assistant of the same sex. The experimenter will guide the subjects through a short practice questionnaire to ensure correct understanding. The students will then complete several questionnaires: The BREQ, the SPAS, the PSPP, and the EMI2. These questionnaires will be filled out independently to avoid demand characteristics and social pressures that could bias the participants' responses.

Since previous research has shown that the intensity of exercise needs to be high enough to invoke improvements in physical function, fitness, and appearance, participants will receive an 18-week cardiovascular exercise program of moderate-to-high intensity. Participants will undergo a sub-maximal fitness assessment in order to design a personalized cardiovascular program suited to each student's individual fitness level. These programs will be created by a certified fitness trainer. Participants will be asked to exercise four times per week for 45 minutes at a pre-assigned target heart rate. The target heart rate and the duration at that target heart rate will increase weekly, progressing toward a target heart rate of 70% by week 18. Before starting the exercise program, students will be given a tour of the recreation center to ensure that they abide by the rules of the facility and that they understand how to safely and properly use all the equipment. They will be provided demonstrations of proper technique and also observed to ensure that they can successfully carry out the exercises on their own. At the end of the exercise program, participants' BMI will be reassessed and they will

complete the questionnaires once more.

It is believed that there will be no serious risks associated with this research study, however, potential minor risks of this study would be: stress/frustration (due to loss of time spent filling out questionnaires), mental/physical fatigue, and/or the standard risks associated with cardiovascular exercise of moderate intensity. By exercising at the recreation center, participants are guaranteed to be supervised by certified staff who will always be on duty in case of an emergency. In addition, participants will have weekly check-ins to ensure their well-being and will be able to contact the experimenter at any time if they have any questions or concerns. If any injuries or emergencies were to occur, students will have immediate access to medical and psychological support services via their college. The potential benefits to this study would be insight into what kind of motivation is best to increase self-perceptions and increase exercise adherence, as well as various cardiovascular health advantages. Participants who complete the study will receive a free, week-long trial membership to a local gym as compensation for their time and effort.

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Author's Note

I am a sophomore at Saint Mary's College of California with a major in psychology and a minor in kinesiology. I have a deep passion for nutrition, fitness, and human behavior. I love to workout, to create recipes, to cook with my mom, and to study psychology.

Last semester I had the opportunity to take Professor Steve Miller's Measurement and Evaluation kinesiology course. I remember first receiving the prompt for this large paper that we would be writing. But it wasn't just a paper; this project required me to come up with a topic, form a hypothesis, conduct substantial research and, based off of the gaps in the existing literature, design my own research proposal that would both be ethical and add value to the field.

The first step of the process was to find a topic that interested me. I had come up with two different ideas; one was more closely connected to kinesiology and the other was related to psychology. At first I thought I would write a research paper on the effects of branched chain amino acids on body composition and athletic performance. After much thought, I realized I wanted to study a topic that involved psychology because I am so passionate about it. I chose to study the effects of body image on exercise motivation because this subject is relevant to a lot of issues that adolescents and young adults face during their high school and college years. I find it fascinating, but also quite alarming, how a single word or a single action can have such a powerful effect on others.

I want to thank Professor Miller, not only for submitting my research paper to *The Undergraduate Spectrum*, but also for the many hours he spent advising me and guiding me through this process. A big thank you to my Writing Circle and Facilitator, Jennifer Burnside, for their constructive feedback and readerly responses at each weekly meeting. I would also like to thank David Zumwalt, an advisor at CWAC, for his help in the final editing and submission process of my research paper. It is such an honor to be recognized by the *The Undergraduate Spectrum* and the SMC community.

Ted Shawn: Redefining Gender and Sexuality in Modern Dance

Kathryn Carero

Ted Shawn, a pioneer in modern dance and the expression of the male dancing body, was born on October 21, 1891, in Kansas City, Missouri.[1] He was always drawn to religion, and studied ministry at the University of Denver.[2] During his time there, he contracted diphtheria, which left him paralyzed for over a year. He used sheer will and force to regain movement of his muscles, and utilized dance as physical therapy, which ultimately facilitated his full recovery. In 1911, Shawn saw a performance by Ruth St. Denis that touched him on a spiritual level and encouraged his determination to become a dancer.[3] Shawn began dancing with St. Denis after meeting her in New York, and eventually, in August 1914, the two were married.[4]

Shawn and St. Denis began to build their careers together, creating the Denishawn dance school and company in 1915.[5] After years of dancing and working together, the couple separated in 1931, though they never officially divorced.[6] Following their separation, Shawn formed his own company, called Ted Shawn and His Men Dancers.[7] As a queer man,[8] Shawn was fascinated with exploring masculinity within dance, and wanted to make sure the male dancers had "the respect that was due them."[9] Although Shawn's choreographic choices seemed to have the intention of preserving queer men's masculinity within a homophobic society, closer analysis of his dancing must also consider the inherent separation between gender and sexuality. Additionally, because masculinity is defined by power and privilege, it is imperative to consider the intersectionality of Shawn's social identities. Pieces such as *Death of Adonis: Plastique* and *Kinetic Molpai* demonstrate this and the ultimately progressive way Shawn navigated the dance world.

Despite Shawn's deviation from societal norms of sexuality, he subscribed to gender roles and expectations very overtly. In his book *Dance We Must*, Shawn includes a lecture entitled "Dancing for Men" wherein he discusses the way gender plays out in dance.[10] He presents the idea of innate gender differences, stating that there are "two sexes, complementary but distinct."[11] Not only did Shawn view gender and sex in a rigid binary, which is problematic in itself, but he also believed that people have the responsibility to conform to their assigned gender. He compares men's and women's dance movement, saying that women are "tender, delicate, and tentative," while men are "aggressive, forceful, and explicit."[12]

1 "Ted Shawn." *Encyclopedia Britannica Online*, accessed 11/30/16, https://www.britannica.com/biography/Ted-Shawn.
2 Mazo, Joseph H. *Prime Movers: The Makers of Modern Dance in America.* (New York: Morrow, 1977), 88.
3 Ibid., 89-90.
4 Ibid., 92.
5 Ibid., 96.
6 Mazo, 93.
7 Ibid., 109.
8 Burt, Ramsay. *The Male Dancer: Bodies, Spectacle, Sexualities.* (London: Routledge, 1995), 90.
9 Mazo, 113.
10 Shawn, Ted. *Dance We Must.* (Pittsfield, MA: Eagle Printing and Binding Company, 1950), 117.
11 Ibid., 117.
12 Ibid., 118.

Shawn also states that men and women must abide by their schemas of movement. He asserts that if "either sex [were to] project themselves through the movement quality of the other sex," the audience would have a negative reaction.[13] Shawn felt an obligation to perform gender through movement. He had an aversion to men performing perceptually feminine movement, and vice versa. Therefore, Shawn highlighted the masculine aspects of dance in his male company in order to change the social perception that dance was for "sissies."[14] Shawn's traditional adherence to gender roles undoubtedly influenced the way he choreographed. Historians have interpreted Shawn's work through multiple lenses, some seeing it as traditional, and some as subversive. For example, Judith Lynn Hanna focuses on the irony in Shawn's movement choices by criticizing his attempt to "prove" his straightness through hypermasculinity.[15] However, other historians, such as Ramsay Burt, Jennifer Fisher, and Anthony Shay, address the complexity of Shawn's identities, not dismissing his masculine movement as inherently over-compensating.

In his book *The Male Dancer,* Burt highlights a paradox in the gender performance dynamics of male dance. Because of the complex societal structures around masculinity, male dancers enter a "double bind" where they are, by social standards, either overperforming or underperforming their masculinity. Burt states that while watching dance, audience members might feel disappointed upon observing men perform a feminized art.[16] On the other hand, when watching a male dancer perform hypermasculine movement, the audience might feel "distaste," evoking the question "What are they trying to prove?"[17] And considering the inevitable intersectionality of social identities, Shawn was not only forced to negotiate his gender performance, but also his sexuality.

Likewise, in their book *When Men Dance,* Fisher and Shay address this interaction. They state that while there is irony in Shawn's deliberate aim to embody masculinity, in reality "nothing prevents gay men from being macho."[18] There is a societal equation of femininity and attraction to men: as Burt states, "'effeminate' is a code word for homosexual." This assumption can cause Shawn's affinity for masculinity to be perceived as an act of overcompensation, but homosexuality and masculinity can coincide. Burt also adds that during the 1930s, being openly homosexual was "not an option."[19] Therefore, it is not at all surprising that Shawn would try to protect himself by denying his homosexuality. Because of this, we cannot assume that Shawn was intentionally using masculinity to apologize for his queerness: he was merely operating as he needed to within a heteronormative society.

Ultimately, the pairing of gender and sexuality in the first place (i.e., that femininity is tied to attraction to men) can obscure understanding of Shawn's work. It cannot be denied that there is fear attached to being read as homosexual, but it is also necessary to separate gender from sexuality when analyzing Shawn's contributions to modern dance.

For example, Shawn's *Kinetic Molpai* perfectly displays masculine athleticism. Choreographed in 1936, it explored themes of history, war, and Olympic sport.[20] The piece begins with a soloist who welcomes eight more dancers on stage, and the group moves through dynamic formations that ebb

13 Ibid., 119.
14 Fisher, Jennifer, and Anthony Shay. *When Men Dance: Choreographing Masculinities Across Borders.* (New York: Oxford UP, 2009), 33.
15 Ramsay, 11.
16 Ibid., 23.
17 Ibid., 9.
18 Fisher, Jennifer, and Anthony Shay, 33.
19 Ibid., 11.
20 Mazo, 113.

and flow with strong, bound movement.[21] The dancers, all shirtless and in long pants, do not touch until the last section of the piece, when they functionally carry and move the soloist. When the piece ends, they leave him on stage, lying down, alone. Shawn's careful selection of strong-bodied dancers is evident in this piece. Here, the double-bind of masculinity in dance is again illustrated, as the dancers cautiously navigate bodily contact. Shawn places his male dancers close enough to one another to overtly display a sense of masculinity, but not close enough to evoke any homoerotic overtones that could threaten it. When they do touch, multiple dancers lift the soloist at once: a group display of strength that avoids any one-on-one contact. In leaving the soloist on stage, the dancers demonstrate that their physical touch caused no lasting emotional connections that might allude to femininity.

In *Kinetic Molpai*, the absence of eroticism is not indicative of fear, but rather, the choice to make space for masculine movement in the dance world.

Kinetic Molpai exemplifies the two previously discussed lenses on Shawn's work. One could assume that Shawn gives the dancers hypermasculine movement and intentionally chaste contact to actively detach himself from homosexuality, but more encompassing and dynamic analysis leads the viewer to understand the piece more fully. In *Kinetic Molpai*, the absence of eroticism is not indicative of fear, but rather, the choice to make space for masculine movement in the dance world. Shawn's dancers avoid emotional connection to demonstrate that they can exist and perform side by side without eroticism or being viewed as "sissy."[22] Shawn aimed to combat this prejudice so that "dancing as a career would take its place with other legitimate professions."[23]

Moreover, Shawn's *Death of Adonis: Plastique* further demonstrates the influence of his social identities on his work. In this solo, Shawn wore only a fig leaf and white makeup, performing statuesque movement, in an effort to resemble the figures of ancient Greece.[24] In addition to gender and sexuality, this piece illustrates the way race interacts with Shawn's choreography. Shawn's white makeup emphasized not only his role as a statue, but also his racial whiteness. Additionally, he was "extremely controlled and disciplined" as he moved through his statuesque poses. Burt explains that a hard, impermeable body rejects the risk of merging with others. This idea of control and separation is "important to the white male ego" because great stability is needed to maintain this fragile position of societal privilege. Shawn's portrayal of a hard, white, male body detaches him completely not only from femininity, but also from non-whiteness.[25] In both his gender and his race, Shawn holds privilege, and his choreographic choices are an undeniable effort to uphold that privilege.

However, this piece therefore creates the need for careful analysis of the identity in which Shawn does not hold power or privilege — his sexuality. According to Burt, many nineteenth- and twentieth-century homosexual men viewed ancient Greek society as an "ideal" because of the

21 Jacob's Pillow. "Ted Shawn's men dancers: *Kinetic Molpai* - Jacob's Pillow Dance Interactive." Jacob's Pillow Dance Interactive, accessed November 30, 2016, http://danceinteractive.jacobspillow.org/ted-shawns-men-dancers/kinetic-molpai/.
22 Fisher, Jennifer, and Anthony Shay, 96.
23 Ibid., 98.
24 Burt, 93.
25 Ibid., 94.

way manliness and homosexuality were normalized and intertwined.[26] Because Shawn inhabits a character that is tied to homosexuality, it can again be inferred that he did not hold self-directed homophobia. By choosing to display an ancient Greek sculpture in a strong and dignified way, Shawn seems to affirm the validity of homosexuality, further illustrating the ability of queerness and masculinity to coincide. Shawn's performance of *Death of Adonis: Plastique* illustrates the importance of his maleness, whiteness, and homosexuality to his choreography, demonstrating once more that these identities cannot be separated from each other or from analysis of his work.

Shawn created work in a time where traditional gender roles were upheld and celebrated. He undeniably subscribed to these roles, and in his effort to display traditional masculinity, he tended to "[limit] the range of male dancing to tough, aggressive expression."[27] Although his movement vocabulary was limited by gender, Shawn did accomplish his goal of making more space for masculinity within dance. By not shying away from his communal identity with other men, Shawn challenged heteronormativity. He seemed to understand that his queerness was not a threat to his masculinity, and he used this to assert space for men in dance. Shawn was by no means a perfect illustration of gender or racial equality: by detaching himself from femininity and non-whiteness, he took advantage of his privilege. However, his work was ultimately progressive not only in that it separated sexuality and gender, but also because it questioned the social structures that demonized homosexuality in the first place. Shawn's social identities led him to produce complex work that helped to create a pathway for the future of modern dance.

Author's Note

As a student studying Psychology, Dance, and Women's and Gender Studies, critical analysis of performance in Dance History II was an exciting, interdisciplinary nexus. Over the course of my immersion in feminist theory and thought over the last few years, I have taken a special interest in the social construction of masculinity. Researching Ted Shawn's famous work through a subversive, feminist lens allowed me to examine performativity as well as the everyday politics around gender and sexuality. When I read about the nuances in the social and historical analysis of Shawn's work, I was inspired to explore his dancing from a progressive viewpoint that demonstrated the complexities of masculinity within dance.

Many thanks to my professor, Roberta Chavez, for submitting this essay and for facilitating provoking dialogue in the classroom. Thank you to my parents and family, who have supported me throughout my academic journey. Endless gratitude to the Saint Mary's Dance Company faculty, who inspire me every day to create and consume radical art. Thank you to Shaunna Vella, for showing me what it means to embody social justice in movement. And a huge thank you to my writing advisor, Sabrina Nguyen, who worked with me meticulously through the editing process and helped me make this paper presentable and cohesive.

26 Ibid., 94.
27 Ibid., 97.

Gender and Politics of Care

Leora Mosman

The United States is noteworthy for the lack of value that care is given in our society at large. Our country is one of the wealthiest, most powerful nations in the world, and yet we are the only developed country that does not mandate universal maternity leave. We also lack affordable childcare, daycare, or adult care for the elderly and disabled. Because the overwhelming majority of caregivers are women, this phenomenon results in a distinct gender disparity, one where women of color and caregivers in poverty are affected with added severity. In a society that has historically valued breadwinning over caregiving, how do we move away from the tendency to see care as secondary to money? To put care at the center of politics will require that we shift cultural values towards caregivers by giving explicit value to the job of caregiving; and that we value all caregivers from every racial and economic background.

In a society that views wealth as the equivalent of success, Americans have adopted a competitive mentality of nonstop work in order to achieve both. Because attitudes towards work are so deeply ingrained in our society, it is clear that the culture surrounding care will need to shift to a place where society perceives care as deeply valuable. Gender roles have historically defined the lenses through which we view care: it is a woman's duty to fulfill her roles in the private sphere as caregiver, while her male counterpart enters the public sphere to support the family. While those stereotypes have shifted greatly within the past decades, "the key to that pattern lies in two completely human drives: competition, the impulse to pursue our self-interest in a world in which others are pursing theirs, and care, the impulse to put others first."[1] Both men and women are driven by these two factors, but society at large has continued to view competition and care as mutually exclusive and largely designated for different genders — a dangerous habit that has resulted in the gender disparities between public and private spheres.

Contrary to what many individuals would assume, another women's movement that pulls more women into the professional workforce of the public sphere will not solve the gender disparity that permeates our society. The issue is not that "too many women are at the bottom of American society,"[2] but rather that there are too few men in the private sphere — fulfilling positions of caregiving. In order for women to achieve equal representation in high-level careers, men need to move into the private sphere at equal rates as women moving into the workforce. Gender roles are painfully perpetuated in all areas of our lives; "to counter these assumptions and carefully prescribed roles, men need a movement of their own" that results in "the same range of choices with respect to mixing caregiving and breadwinning"[3] that women have. True gender equality requires that we "sweep away the gender roles that we continue to impose on men even as we struggle to remove them from women."[4] We must raise men to believe that they, too, can be anything they would like to be. By not presenting caregiving as a legitimate and respectable

1 Slaughter, Anne-Marie. *Unfinished Business: Women, Men, Work, Family.* New York: Random House, 2015. Print. Pg. 83
2 Ibid., 82.
3 Ibid., 127.
4 Ibid., 128.

option, we unconsciously perpetuate the idea that caregiving is less important than breadwinning, and therefore perpetuate the gender disparities that disproportionately disadvantage women.

As much as we need cultural perceptions of care to change, oftentimes a culture will not shift without legal precedents and policies to guide it. With this in mind, we must demand that American public policy reflect the value that caregiving deserves. If we are asking that caregiving become culturally valuable, it is necessary that we give it explicit worth in the public sphere as well. Many individual workplaces have taken it upon themselves to allow care to exist simultaneously with competition by providing certain benefits and flexibilities to their workers, yet on a national spectrum this has yet to occur. The United States is starkly behind other developed nations in our infrastructure of care as our society stays painstakingly loyal to its value of competition in the public sphere. Paid and required parental leave, affordable childcare and eldercare, increased investment in early education, and "legal protections against discrimination for part-time workers"[5] are all good starting points. Ideally, our society will shift to a point where the above-mentioned caregiving benefits are given in all areas of the public sphere, and where all individuals have options that "allow them to either ramp up or dial down their careers as necessary,"[6] in order to allow care and competition to exist simultaneously. If care is to be seen as a critically important aspect of our lives, an aspect that is needed by all of us, we must begin by mandating these benefits in our workplaces.

Because caregiving is so intimately tied with the gender roles and inequality that permeate our society, feminism has fought long and hard to push for policies that would give women the abilities to succeed both professionally and at home. However, hidden behind the gender disparity are numerous other disparities that have, historically, not been included in the platforms of feminism. In the 1970s, second wave feminism was a part of a larger social revolution with a "common thread… for equality, fairness, peace, and above all justice: equal rights under law." Gloria Steinem, in a speech made in 1970, claimed that "women could provide the link between all those groups… because they 'are sisters; they have many of the same problems, and they can communicate with each other.'"[7] While her speech was grounded in the hope that women would unite and provide continuity between all of the ongoing movements, her statement made the unfair and offensive assumption that all women experience the same things. Many women, particularly poor women and women of color, never felt included in the feminist movement — a movement with a platform that was not relevant to their lives in a wildly capitalist and racist society. It has never been more clear than today that "wealthy, middle-income, working-class, and poor women live very different lives;" not to mention women who are not white, not able-bodied, not American citizens, and not speakers of the English language.[8] To view "all women as oppressed in common" is to deny the reality that so many women live.[9] However, specifically within the politics of care, "gender nevertheless continues to figure as *a priori* in care ethics and analyses of care giving and care activities."[10]

5 Ibid., 233.
6 Ibid., 214.
7 Ibid., 88.
8 Ibid., 89.
9 Hankivsky, Olena. "Rethinking care ethics: On the promise and potential of an intersectional analysis." *American Political Science Review* 108.2 (2014): 252-64. Web. Pg. 256.
10 Ibid., 256.

Cynthia Enloe's *Bananas, Beaches, and Bases: Making Feminist Sense of International Politics* notes that of the 53 million domestic workers throughout the world today, 83% of those workers are female.[11] She continues to show that of the 83%, the overwhelming majority are women of color. With this in mind, it is critical that we pay attention to the racial and socioeconomic differences between the caregivers in our country. Anne-Marie Slaughter claims that while "the question of how to fit caregiving together with our goals for ourselves is common" among all women, it is critical "to highlight the ways in which focusing on a work-life balance speaks primarily to women with professional careers."[12] For women who are living in poverty or for whom a professional career track is not available, the goal of attaining this work-life balance is unrealistic since their more urgent needs, such as providing for hungry children, will always take precedence.

Feminism, the underlying force behind the politics of care, must shift towards intersectionality that will allow all women to be represented and heard.

In order to combat the continued exclusion, however unintentional, of certain women in the politics of care, we must begin by acknowledging the shortcomings of care theory to date. Olena Hankivsky, in her "Rethining Care Ethics: On the Promise and Potential of an Intersectional Analysis," claims that in feminism, "even the most nuanced, complex versions… fall short because they center and prioritize gender and gendered manifestations of power." This causes care scholars, when considering factors beyond gender, to "add race and class rather than consider the ways in which these are co-constructed in multiple ways."[13] Because the identities of race, class, and other groups are more of an afterthought, "care theorists tend to mask the historically rooted ties and mutually constituting processes and patterns of a broader range of oppressions,"[14] thus excluding caregivers whose identities are complicated by more than just their gender. Feminism has been the driving force behind legislative change in the realm of care politics, but in order to continue this change for all caregivers, care theory must embody the experiences of all women.

In her explanation of the need for intersectional care politics, Hankivsky explains intersectionality as the rejection of the concept that "human lives can be reduced into separate categories such as gender, race, and class because people are 'neither singularly gendered, racialized nor classed.'"[15] The human mind loves to separate and categorize identifying factors among individuals. Hankivsky, however, advises that people stop defining others by a singular identity, because this habit "is often premised on assumptions that such groups have similar predispositions, problems and needs that require similar approaches and policy solutions when in fact, no such 'unitary' or undifferentiated human subject or group exists."[16] Fortunately, the notion of intersectionality is beginning to characterize a third wave of feminism: one that

11 Enloe, Cynthia H. *Bananas, Beaches and Bases: Making Feminist Sense of International Politics*. 2nd ed. Berkeley, CA: University of California, 2014. Print. Pg. 306.

12 Slaughter, 90.

13 Hankivsky, 252.

14 Ibid., 253.

15 Ibid., 255.

16 Ibid., 256.

examines identities in a holistic, rather than singular, way. Without intersectionality to guide a new feminism, the movement "cannot be truly anti-oppressive because it is not, in fact, possible to tease apart the oppressions that people are experiencing."[17] In regards to the coexisting identities race and gender, for example, "racism for women of color cannot be separated from their gendered oppression,"[18] and why should it be? Without allowing each individual the full experience of a complex set of interlocking identities, the politics of care will remain exclusive.

In the case for politics of care, Slaughter gives numerous ideas for how to begin changing our culture and policy to reflect a sense of value towards caregivers. First, working women must begin conversations within their workplaces to demand flexibility and caregiving benefits in their careers, in order to allow for the combination of competition and care to be supported in the public sphere. Next, caregiving must be seen as a career in itself; men must move into the private sphere; and there must be an increased level of respect for those who choose to be full-time caregivers. Feminism, the underlying force behind the politics of care, must shift towards intersectionality that will allow all women to be represented and heard. Finally, we must increase the number of women in power by funding and voting for women running for office, especially women of color. With women in power, an increased focus on care will result in the ability of more women to achieve both career and caregiving goals. Care is "fundamental to the human condition" and impacts every single one of us, so let us begin to treat it that way.[19]

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17 Uwujaren, Jarune, and Jamie Utt. "Why our feminism must be intersectional." *Everyday Feminism*. N.p., 11 Jan. 2015. Web. 04 Dec. 2016.

18 Ibid.

19 Hankivsky, 254.

Author's Note

Throughout the semester of fall 2016, our Gender Politics class — made up completely of women — had been eagerly anticipating November 8th as the election of the first female president of the United States. November 9th, a day for which we had altered the syllabus in order to make room for champagne and celebration, arrived instead as a day filled with shock and sadness.

After spending months studying the endless ways in which gender oppression and sexism still permeate our culture, society, and government even after decades of feminist activism, it was palpably painful and immensely confusing to watch the face of misogyny itself gain the presidency.

Our initial essay prompt had asked us to imagine that we were members of President Clinton's cabinet and to describe in detail what policies we would pass and why. The topic was changed, along with our election expectations, and instead we were asked to address one of our class topics in the context of this new administration. While in the editing process of this essay I removed all specific political overtones directed at our current presidential administration, it is still, at its core, resistance.

Our Gender Politics class was the first and possibly last class where women were my only classmates. I wrote this essay as a closing to a class that had truly been a healing experience. This class was a space of solidarity and affirmation for me, and this essay is a testament to my classmates and professor who broke free of the patriarchy that our education is fundamentally built in and showed me what academia can look like when women are free. The future is indeed female.

The Persuasive Effects of Priming and Framing on Physical Activity

Wendy Ibarra, Emily Kich, Anne Geraghty

We are often unaware of the importance of how information is presented to us. A message can be transmitted with various tones which have differing effects on how an audience perceives the information and how likely they are to take action as a result. Pinpointing the types of language and tones that are most effective can be extremely impactful for communication pathways like advertising, which can be used to influence citizens of our society to be more healthy, involved, and knowledgeable.

Two helpful tools for creating a persuasive message are priming and framing. Priming is a set of cues used before conveying a message that might influence a person to think in a certain way. In Siu Luen-Wun's (2007) study, priming is described as an activation link in linguistic processing as well as concept nodes in the human memory, such that a person's evaluation of something can be subconsciously influenced by information they were given recently beforehand. Exposure to priming cues influences a response as they are easily accessible in recent memory. Another component of message effectiveness is framing. According to Chang (2008), "framing mainly concerns the presentation of positive outcomes or negative consequences." Two common forms of framing are gain framing and loss framing; gain framing emphasizes the benefits of taking action, while loss framing focuses on the consequences of not taking action. A person's response to a message (their perception of it and their likeliness to subsequently take action) can greatly depend on how they are primed and how the message is framed.

The present study was designed to explore the effects of priming and framing on participants' perception of a message and their likelihood to exercise as a result. We aim to answer two specific questions. First, we want to explore how positive and negative priming words affect the persuasiveness of a subsequent video about exercise, and how motivated the participant is to exercise. Second, we aim to learn whether a gain-framed or loss-framed video is more persuasive, and how motivated the participant is to exercise as a result of the video.

We believe that negative priming leads to a greater increase in a desired health behavior than positive priming. When people see negative images or read negative words related to health, they might become worried about their own life and wellbeing, which could propel them to behave more healthily. Especially in regards to behaviors relating to health, negative priming has been shown to result in greater action. In Hollands and Marteau's (2016) study on the effects of priming, they found that priming participants with images of negative health outcomes led to more healthy food choices in comparison to both the control group and the comparison group where participants were primed with images of positive health images. Therefore, we expect to find that negative priming leads to a greater increase in a desired action than positive priming.

While we hypothesize that negative priming will result in a greater motivation to take action, we also predict that participants will perceive positive priming to be more persuasive than negative priming. This hypothesis is supported by Siu Luen-Wun's (2007) study, where participants that had positive priming (by listing people they knew who were healthy) prior to viewing a video on physical

activity found it to be more persuasive than the negative-primed group who listed people they knew who were unhealthy.

Similarly, we expect the gain-framed message to be perceived as more persuasive, but the loss-framed message to motivate a greater change in behavior. Many researchers have validated the idea that when a message is framed in a way that tells the audience they will receive some benefit, they may find it to be more persuasive. For example, McCormick and Seta (2015) found that when it came to the analytical processing style of the left hemisphere, gain-framed messages were more persuasive. Additionally, in Siu Luen-Wun's (2007) study, gain-framed messages were not only found to be more persuasive, but also in agreement with semantic valence, which looks at how language and logic is controlled by the main verb, or the main part of a sentence that completes the subject. This led us to believe that participants will find the gain-framed message to be more persuasive, particularly when they were positive-primed as well.

On the other hand, messages that are loss-framed show audiences what they can lose if they don't change their behavior. People want to protect what they have and do everything in their power to maintain their health and happiness. This idea has been reflected by previous research. In Fei Xue's (2015) study, results showed that a negative-framed ad increased the chances of participants' intention to purchase an item. Furthermore, Kong, Cavallo, Camenga, Morean, and Krishnan's (2016) study found that loss-framed messages were preferred when it came to health risk, addiction potential, and social labeling for smoking. Therefore, we think that participants who receive a loss-framed message will be more motivated to take preventative action.

Overall, we had four main hypotheses. We expected that participants who are negative-primed will be more motivated to change their behavior and exercise. We also hypothesized that positive priming will be deemed more persuasive than negative priming. In regards to framing, we expected that participants who watch a loss-framed message will be more likely to exercise and will perceive gain-framed messages as being more persuasive than loss-framed messages. In order to test these hypotheses, participants were asked to fill out a short questionnaire about their exercise habits and then read and memorize a list of words written on a whiteboard. These words were either negative words relating to an inactive lifestyle or positive words relating to an active lifestyle. Participants then watched a video about exercise that was either gain-framed or loss-framed. Afterwards, they filled out a questionnaire asking how persuasive they thought the video was and how likely they were to exercise based on its content.

Method

Participants

For this study, we recruited 40 participants, falling between the ages of 18-55. Of those 40, 22 were female and 18 were male. Each experimental session lasted approximately 10 minutes. Psychology 001 students received extra credit in the course for their participation.

Videos. To convey the framed messages, two videos were used. One video was titled "What are the Dangers of Not Exercising?" (Chair Workouts, 2015) and the other one was called, "The Benefits of Regular Exercise" (MonkeySee, 2011). Both videos were approximately one minute and 45 seconds long. Both videos have male hosts to avoid gender bias. In "What are the Dangers of Not Exercising?", the host uses loss-framed message tactics by explaining the consequences of not being physically active. In the other video, "The Benefits of Regular Exercise", the host employs a gain-

framed message and has a comparably positive tone.

Questionnaires. For this experiment, two questionnaires were used. The first was a pre-experiment questionnaire, which consisted of a single question, which asked "On a scale of 1 - 7, how often do you exercise?" where 1 = "don't exercise at all" and 7 = "exercise daily". This pre-experiment questionnaire also asked the participants to provide basic demographic information (gender and age). Participants then completed a second questionnaire immediately after watching the video. Using the same Likert scale rating system, the participants were asked "How persuasive did you find the content of this video to be on a scale of 1-7?" and "How likely are you to exercise based on the content of this video on a scale of 1-7?"

We expected that participants who are negative-primed will be more motivated to change their behavior and exercise.

Procedures

Each participant was asked to fill out a questionnaire about their current exercise routine, memorize a set of words, watch a short video on the topic of exercise, and then fill out a second questionnaire. After the procedures of the experiment were broken down for them, participants were asked to fill out a consent form.

Participants were given two minutes to complete the pre-experiment questionnaire. After being randomly assigned, the participants were given a minute to memorize the positive words (energized, motivated, strong, healthy, active) or the negative words (lethargic, unmotivated, weak, unhealthy, lazy) listed on a white board. Then, participants were again randomly assigned either the gain-framed or loss-framed video to view. Therefore, there were a total of four groups: negative-primed and loss-framed, negative-primed and gain-framed, positive-primed and loss-framed, positive-primed and gain-framed. Following the video, the experimenters gave the participants two minutes to complete the second questionnaire, which inquired how persuasive the participants found the video and how likely they were to exercise based on its content. After all questionnaires were collected, the participants were debriefed as to the purpose of the study and asked if they had any questions.

Discussion

The results of our study showed that gain-framed messages led to significantly greater scores for message effectiveness than loss-framed messages. When participants viewed a video that was upbeat in tone and emphasized the benefits of exercising, their scores indicated that they would be more motivated to exercise compared to participants who viewed the video that focused on the consequences of not exercising. Furthermore, there was a significant interaction between priming and framing in regards to effectiveness. Participants who viewed the gain-framed message had higher scores for effectiveness when they were in the positive-prime group, while the loss-framed message had higher effectiveness scores when participants were negative-primed. Our study found that positive priming and framing to be a more effective motivational tool than negative priming and framing.

Although a previous study conducted by Siu Luen-Wun (2007) demonstrated the importance of semantic valence for how persuasive the participants found a video to be, we found this to be true for effectiveness instead. The alignment of tone (positive priming and a gain-framed video) could be responsible for the overall effectiveness of the message. Interestingly, Siu Luen-Wun's study also

had stronger results for positive priming followed by a positive message. In both studies, a positive, optimistic tone seemed to resonate with the participants more than a negatively-toned message.

A limitation to our study is that it did not use representative samples. Six of our participants were Psychology 001 students from the participant pool, and they were presumably young psychology majors at Saint Mary's College. In addition, 22 of our 40 participants were female, creating a slight disproportion in gender. Another limitation lies in the timing of our study. We gathered our data in the evening, which could have been predictive of the type of people who were present on campus at the time. It is possible that students who are on campus at night are ones who have busy daytime schedules. This could mean they are less likely to be active exercisers. Also, since our study was conducted toward the end of the semester, it's possible that we caught them at a particularly stressful time when they do not have the desire or time to exercise.

Despite our original hypothesis, the power of gain-framed messages on effectiveness has potentially exciting and useful implications. This information can be applied to a variety of scenarios where an audience is persuaded to behave in a certain way. For example, organizations that aim to motivate viewers to exercise more would have a higher chance of doing so by using gain-framed messages that emphasize the benefits of exercising, such as increased endurance, longevity, and better aging. Our research suggests that gain-framed messaging will encourage individuals to demonstrate the desired health behavior — in this case, exercising — better than messages that enlist fear by using scare tactics. Hopefully this knowledge can be used to effectively influence the citizens of our society to take healthier actions.

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Author's Note

This was a collaborative project produced by class of 2017 Psychology majors Wendy Ibarra, Emily Kich, and Anne Geraghty. Among the various ideas we came up with while brainstorming for this project, the topic of priming and framing immediately stood out to us. For one, it is really interesting to consider the social aspect of this idea. How are we influenced by others, and conversely, how can we influence them? The ways in which messages are conveyed have a great impact on how they are received and the actions they evoke. Being aware of this can help give people the upper hand in terms of persuasion and influence. We ultimately decided to study priming and message framing because this type of research can be used in positive ways to benefit people not only in the field of psychology, but also in other areas like health, business, advertising, etc. We were especially intrigued by the idea that this information could potentially be applied to health campaigns that influence large audiences to perform desired behaviors.

This project had a lot of thought and preparation put into it. It was developed over the course of a semester and was completed in a series of stages as a group effort. Each step expanded on the one before, which allowed us time to evaluate and plan for the future advancement of our project. We would not have been able to complete this project without the help of our insightful and patient professor, Paul Zarnoth, who made the process clear and offered constructive criticism along the way. A very special thanks goes out to him for all he has done for us, as well as for our fellow students.

Art Index

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